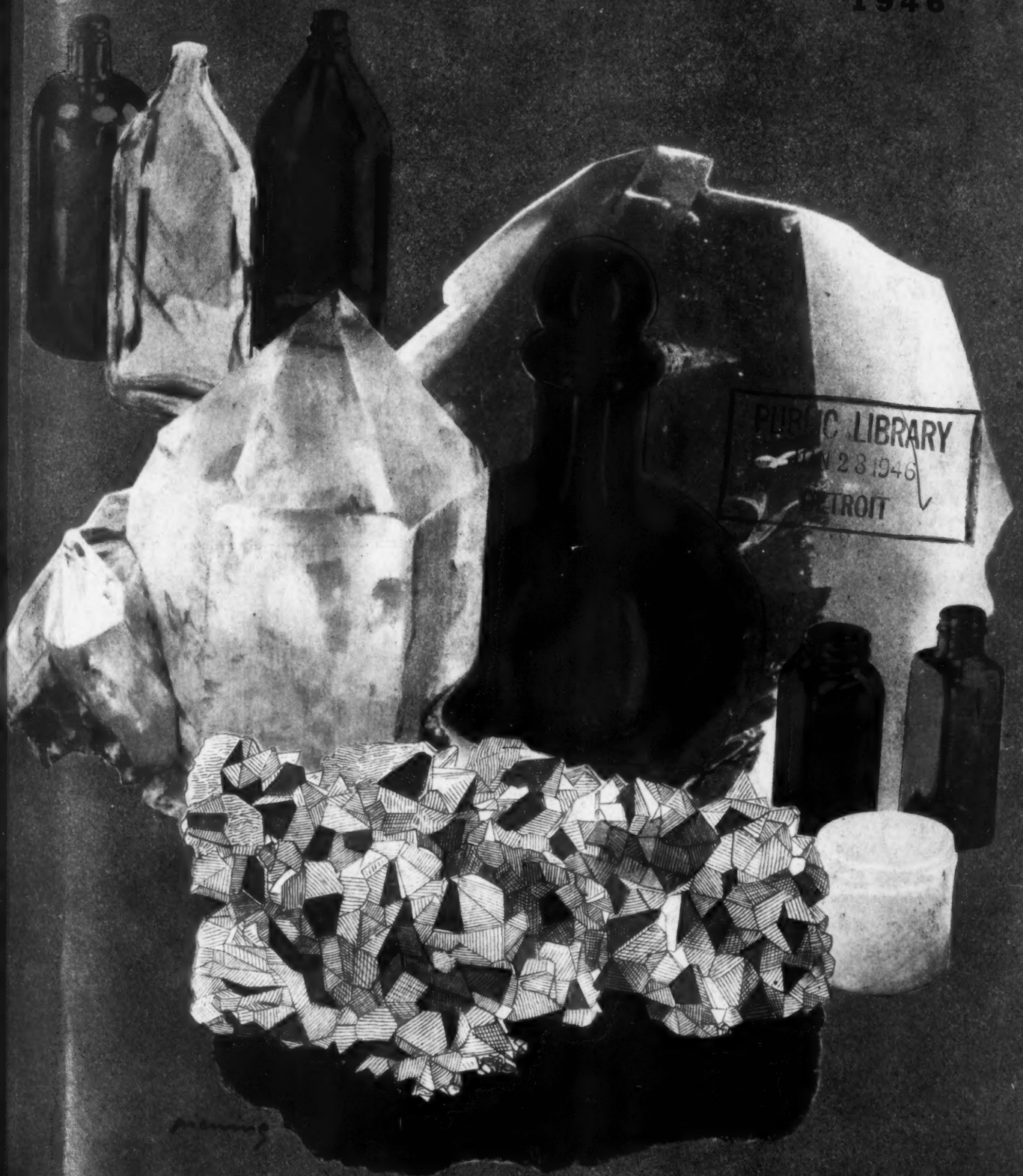
...HNOLOGY DEPT.

MODERN PACKAGING

June 1946



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DETROIT

WHEN AN ADHESIVE MUST *Resist Dew!*

RELY on National...with its wide knowledge of unusual adhesive uses... to provide protection against any form of moisture.

Do you need a moisture resistant adhesive . . . to protect quick-freeze packages against dew-formation . . . to protect bathroom packages against shower condensate . . . to protect potato bags against excessive moisture caused by freight car humidity . . . to prevent mildew during prolonged damp, dark storage?

Or is your problem more complex? Do you need a moisture resistant adhesive film . . . that supplies *breather action* to permit asphalt to be packaged and sealed while still steaming hot . . . that supplies a *moisture vapor barrier* to retain the freshness of various types of foods . . . that supplies *water barrier action* to prevent rain from causing ripples or cockles in heavy cardboard advertising displays?

Remember, moisture resistance is only one of many factors that control a successful adhesive formula. Of course, shop use must also be studied carefully. Shipping methods must be known. Consumer preferences must be analyzed. They have a direct bearing on final—and repeat sales!

You can rely on National . . . with its knowledge of every type of adhesive formula and use . . . to give careful attention to every factor of your adhesive problem. Your inquiry is invited — NOW!

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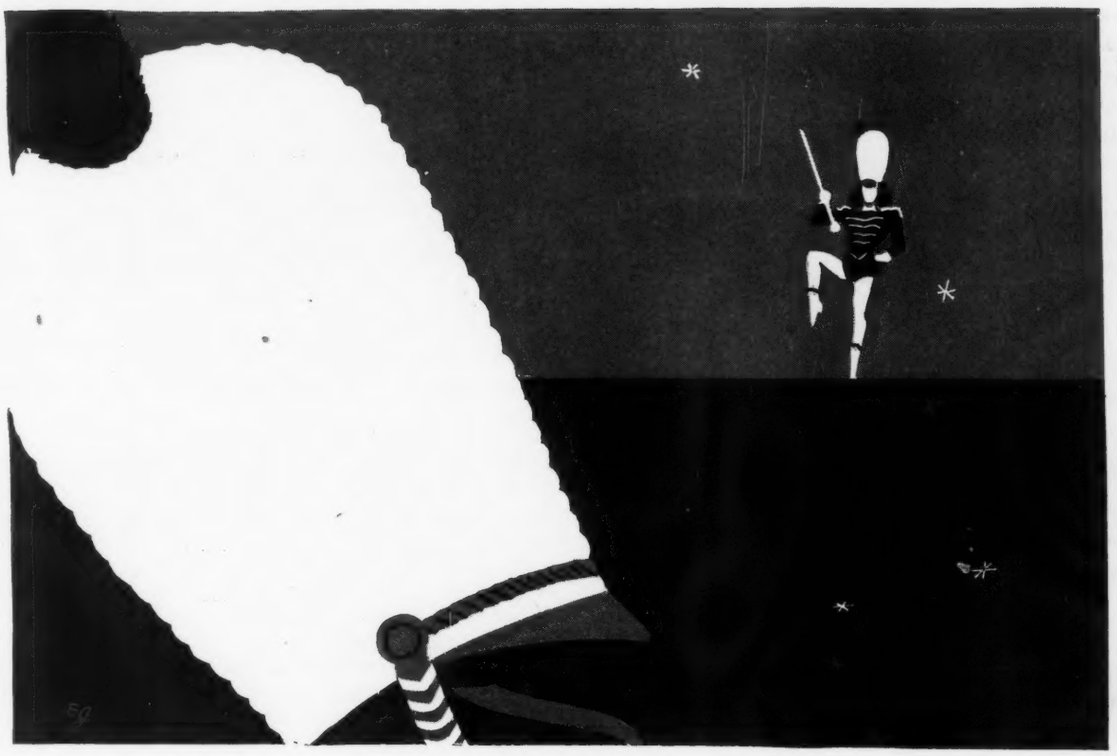
• Offices: 270 Madison Avenue, New York 16; 3641 So. Washtenaw Avenue, Chicago 32; 735 Battery Street, San Francisco 11, and other principal cities. In Canada: Meredith, Simmons & Co., Ltd., Toronto. In England: National Adhesives, Ltd., Slough.

National ADHESIVES

EVERY TYPE OF ADHESIVE FOR EVERY INDUSTRIAL USE



DECORATIVE

A DECORATIVE CAP attracts, identifies, informs. It gives appeal to the package, gets attention for the product. It frequently answers the question: *What's in the package?* long after other elements have yielded to time, wear, and tear. It is a new bid to old customers every time the product is used. A decorative cap spotlights a brand name or packer's name. It highlights many an otherwise drab package. A decorative cap need not be a confusion of colors, or a profusion of rules and scrolls. It can be a standard cap—the Phoenix C T—decorated in a carefully chosen color, or a neat, tasteful design. Such a cap is like good design—refreshingly simple, invariably decorative.

Top wear for glassware

PHOENIX METAL CAP CO., CHICAGO 8 AND BROOKLYN 18

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MODERN PACKAGING is regularly indexed in the *Industrial Arts Index.*

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VOLUME 19 JUNE 1946 NUMBER 10

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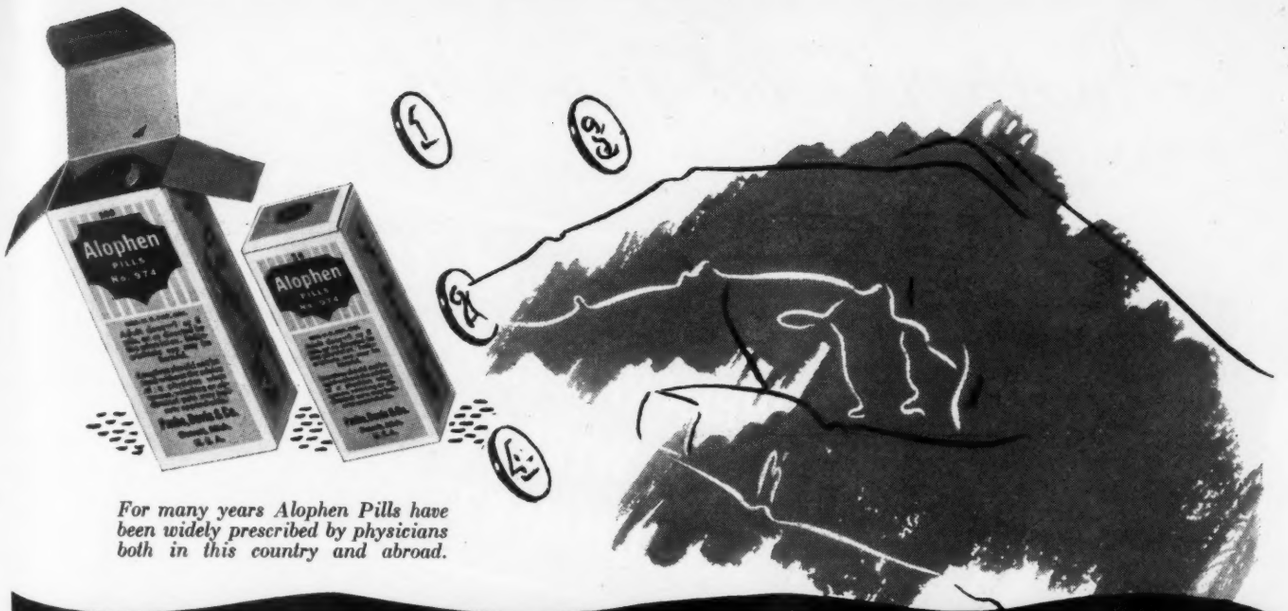

For many years Alophen Pills have been widely prescribed by physicians both in this country and abroad.

Identified for Easy Adjustment at Parke, Davis & Co.

PARKE DAVIS finds it a simple matter to change over its latest Redington cartoner from one package size of Alophen to another . . . *each adjustment* on Redington machines is *identified by a brass numeral tag.* By merely referring to the *list of adjustments*, the machine is quickly and easily changed over from the 30-pill carton to the 100-pill carton and *vice versa.*

When the last adjustment is finished, the machine is ready to run . . . there is no tinkering or experimenting to be done . . . *perfect* operation starts *at once.*

There are many other mechanical and engineering features built into Redington machines which contribute so much to smooth, efficient packaging.

Among them are: (1) self-aligning roller bearings (2) individually motor driven vacuum pumps (3) solid cast-iron base for all-important rigidity (4) turned-and-ground shafting (5) vari-speed drive.

But the one feature that contributes most to the smooth, quiet operation of Redington cartoning units is *Continuous Loading.* Bottles, jars, collapsible tubes—practically *any* cartoned product—can be loaded at a fraction of the machine's *high* operating speed.

—and we could tell you *a lot more* about the marvelous way Redington Packaging Machines are built—the unusual packaging jobs they perform—their *long years* of continuous service in nationally famed plants. *Investigate*—without obligation.

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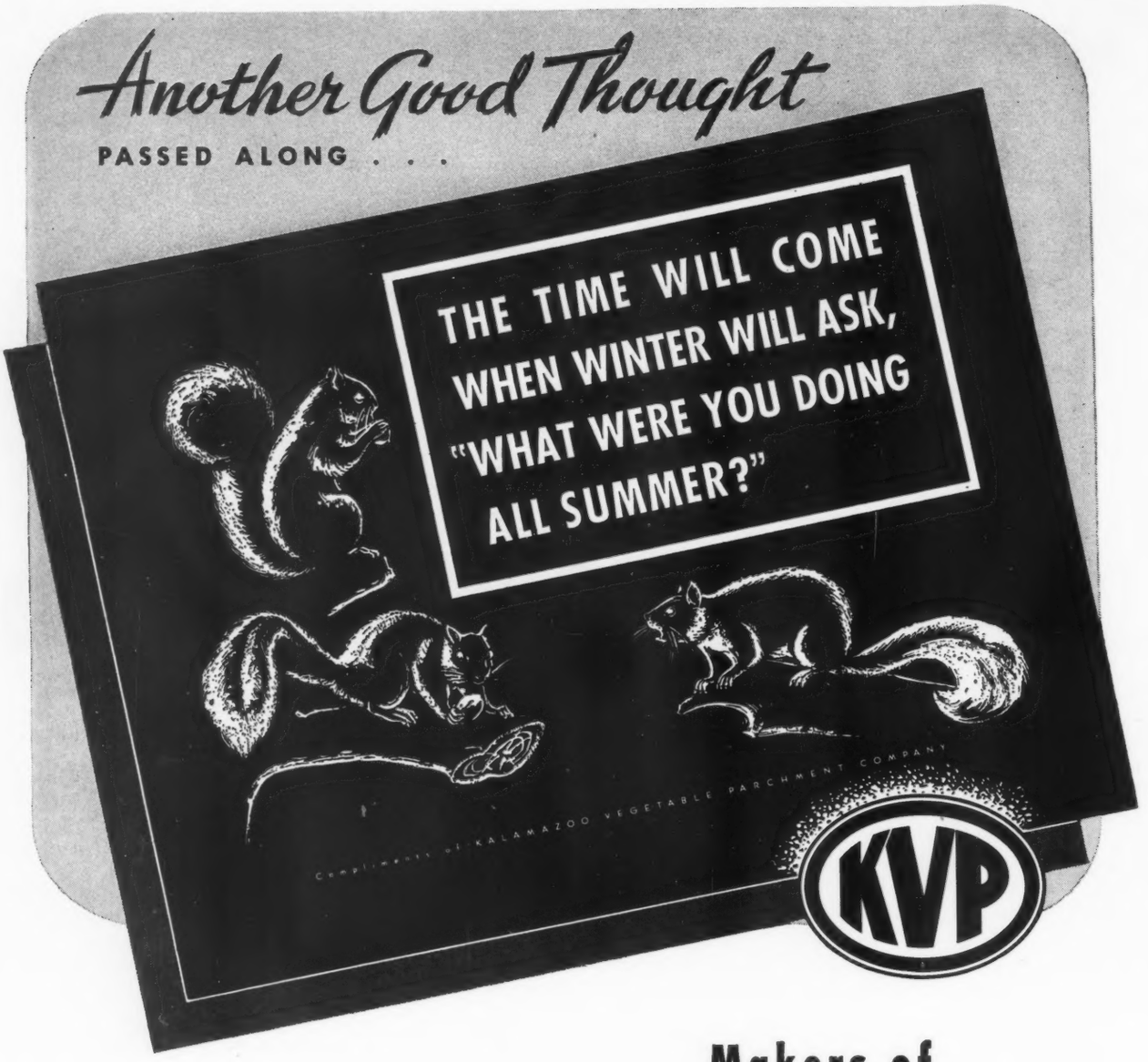
Another Good Thought

PASSED ALONG . . .



Makers of
Food Protection Papers

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GENUINE VEGETABLE PARCHMENT
SPECIAL TREATED . .
GREASEPROOF . .
WAXED . .

"THE WORLD'S MODEL PAPER MILL"

KALAMAZOO VEGETABLE
PARCHMENT COMPANY

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PARCHMENT . KALAMAZOO 99 . MICH.

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Polyvinyl Materials

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PACKAGES *by Milprint* ARE PACKAGES THAT SELL!

Eye-appeal — display value — dynamic colors — these are the sales ingredients that are introduced into every package design by Milprint's experts in creative art and merchandising — the ingredients that compel consumer attention to *YOUR* product.

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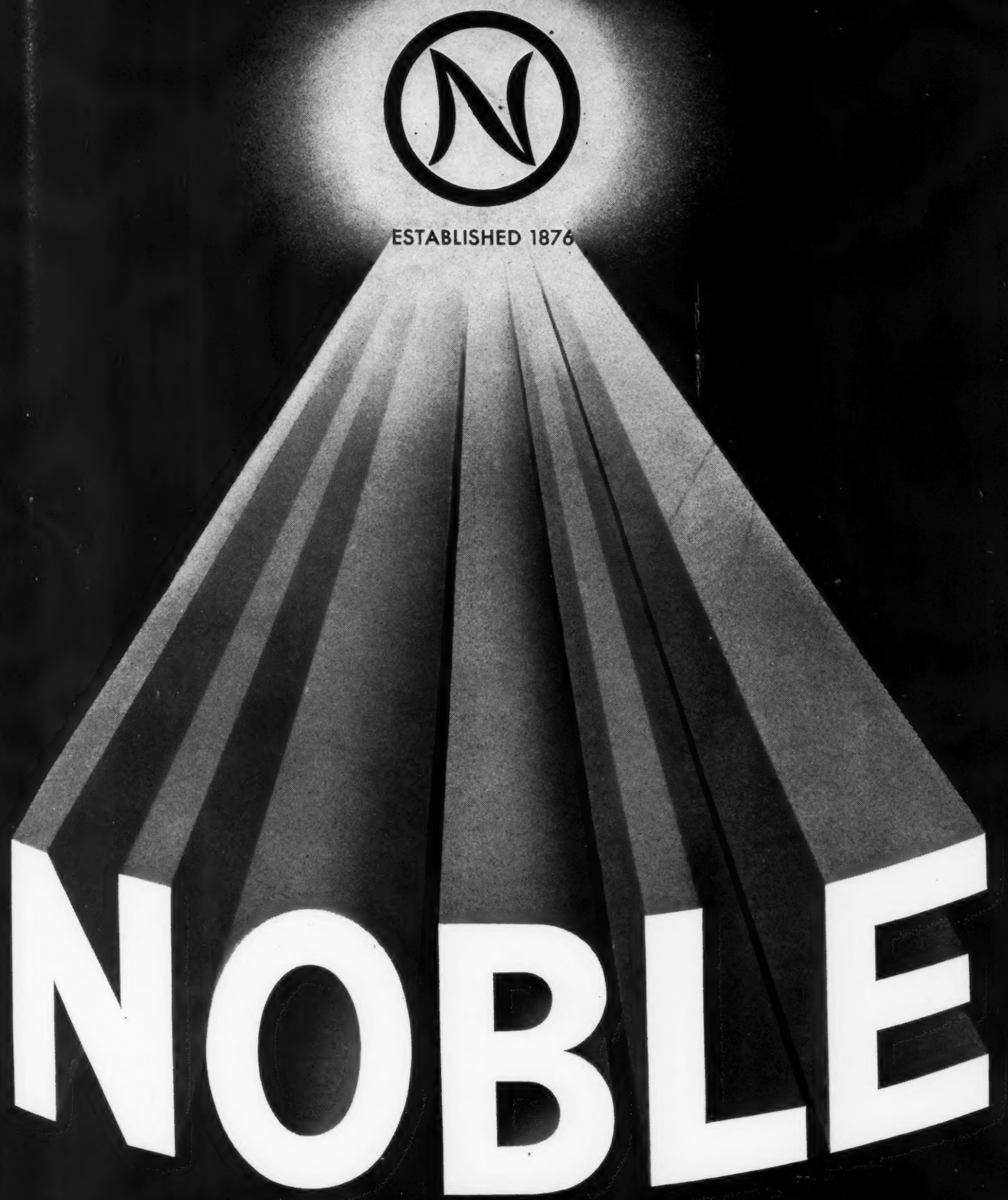

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METAL PRESENTATION BOXES

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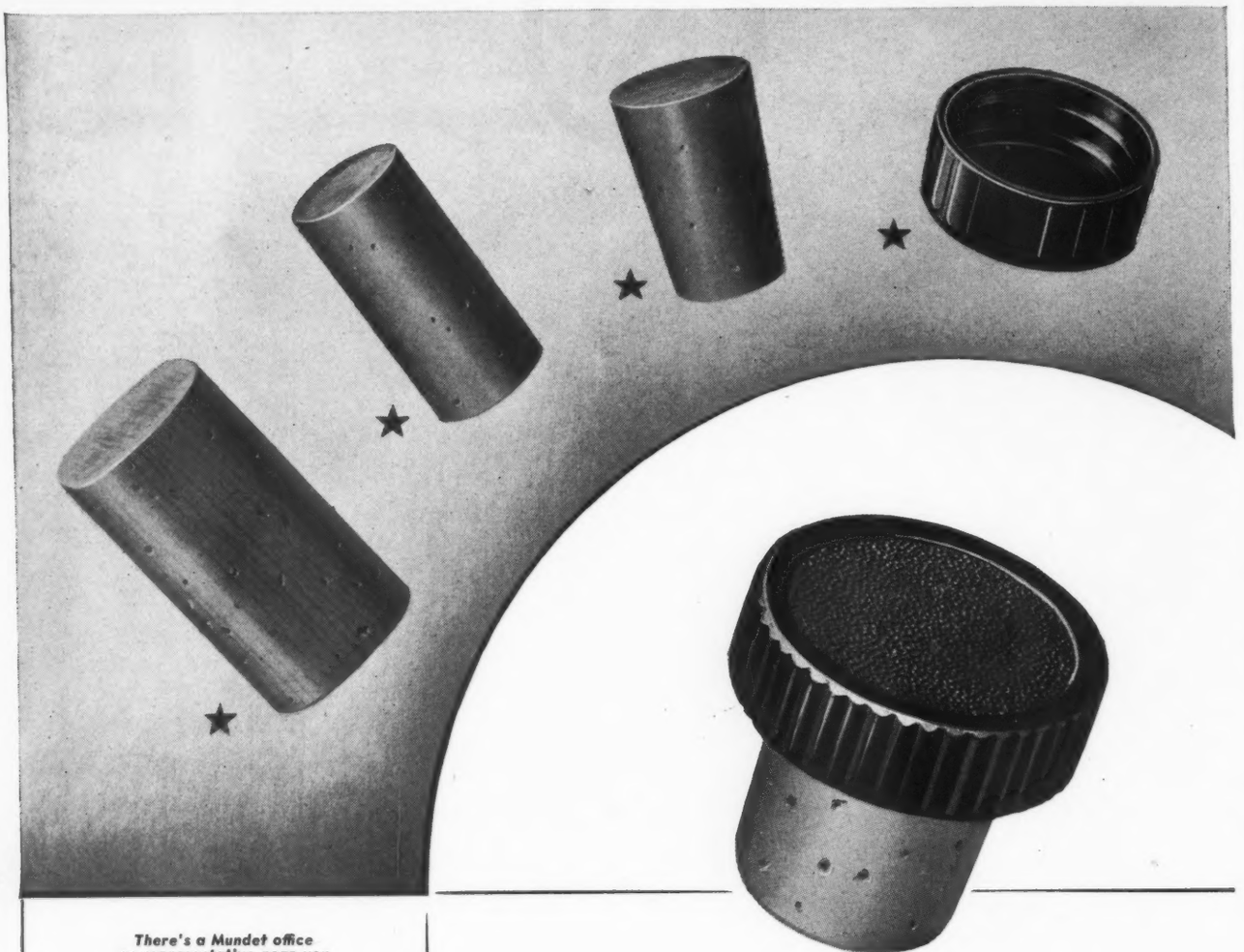

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The Stone-Hall Co.
DETROIT 26
335 West Jefferson Avenue
HOUSTON 1
Commerce and Palmer Streets
JACKSONVILLE 7, FLA.
1212 Mary Street
KANSAS CITY 7, MO.
1428 St. Louis Avenue
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1850 North Main Street
LOUISVILLE 22
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SAN FRANCISCO
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UNIFORMITY of size and shape is an important advantage of Mundet machine-made Corks. Where earlier hand-made stoppers had variations in cutting and trimming, the modern Mundet Cork is duplicated faithfully in million lots. Cork is Mundet's specialized business. The safe-sealing of Mundet Corks is assured thru experienced selection of the raw material, expert grading and processing. After selection of the best grades for stoppers, the finished corks are checked by sorters, carefully trained in this work, in a final grading of cork quality. Mundet Corks remain lively and resilient, do not "set" or crumble. They safe-seal your product's distinguishing quality. Mundet Cork Corporation, Closure Division, 65 S. Eleventh Street, Brooklyn, 11, N. Y.

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For your packaging material— if you want these properties:

TASTELESS, ODORLESS, NON-TOXIC

FLEXIBLE AND TOUGH AT LOW TEMPERATURES

CHEMICALLY INERT

HEAT-SEALS READILY

LIGHT WEIGHT
(Specific Gravity 0.92)

KEEPS MOISTURE OUT
(Permeability: In 3 mils thickness 30 grams/100 sq. meters/hour)

. . You'll want to consider

Du Pont POLYTHENE

Polythene, one of the most versatile of the Du Pont plastics, is now commercially available for the first time for civilian uses as a packaging material. Developed during the war, it has done, and done well, a variety of war tasks—among them, serving as watertight containers for shipping guns and pistols. Polythene can be injection- or compression-molded, extruded or calendered. Polythene is also available in a wide range of colors. For working samples and complete data on Polythene, write E. I. du Pont de Nemours & Co. (Inc.), Plastics Dept., Arlington, N. J.

DU PONT MANUFACTURES POLYTHENE MOLDING POWDER.
COMMERCIAL EXTRUDERS CONVERT POLYTHENE INTO THE FORM OF

SHEETS TUBES RODS FILAMENTS

DU PONT
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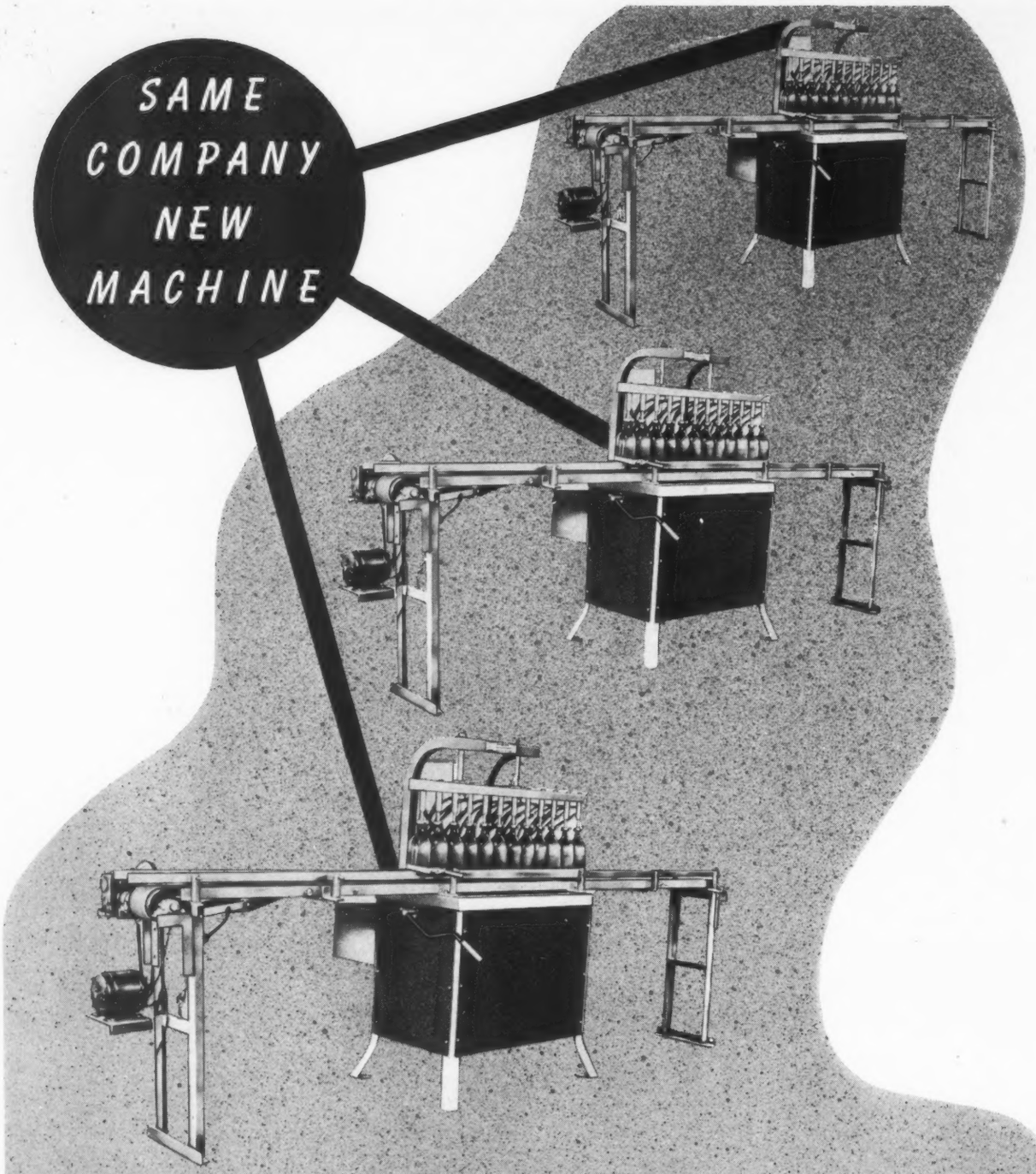
Plastics

BETTER THINGS FOR BETTER LIVING
. . . THROUGH CHEMISTRY

SAME COMPANY NEW MACHINE



MRM proudly presents the latest addition to its packaging family—the MR 12—A new straightline filler with an AUTOMATIC CONVEYOR *synchronized* to the filling mechanism. *Plus* a new feature—all metal parts replacing rubber connections...

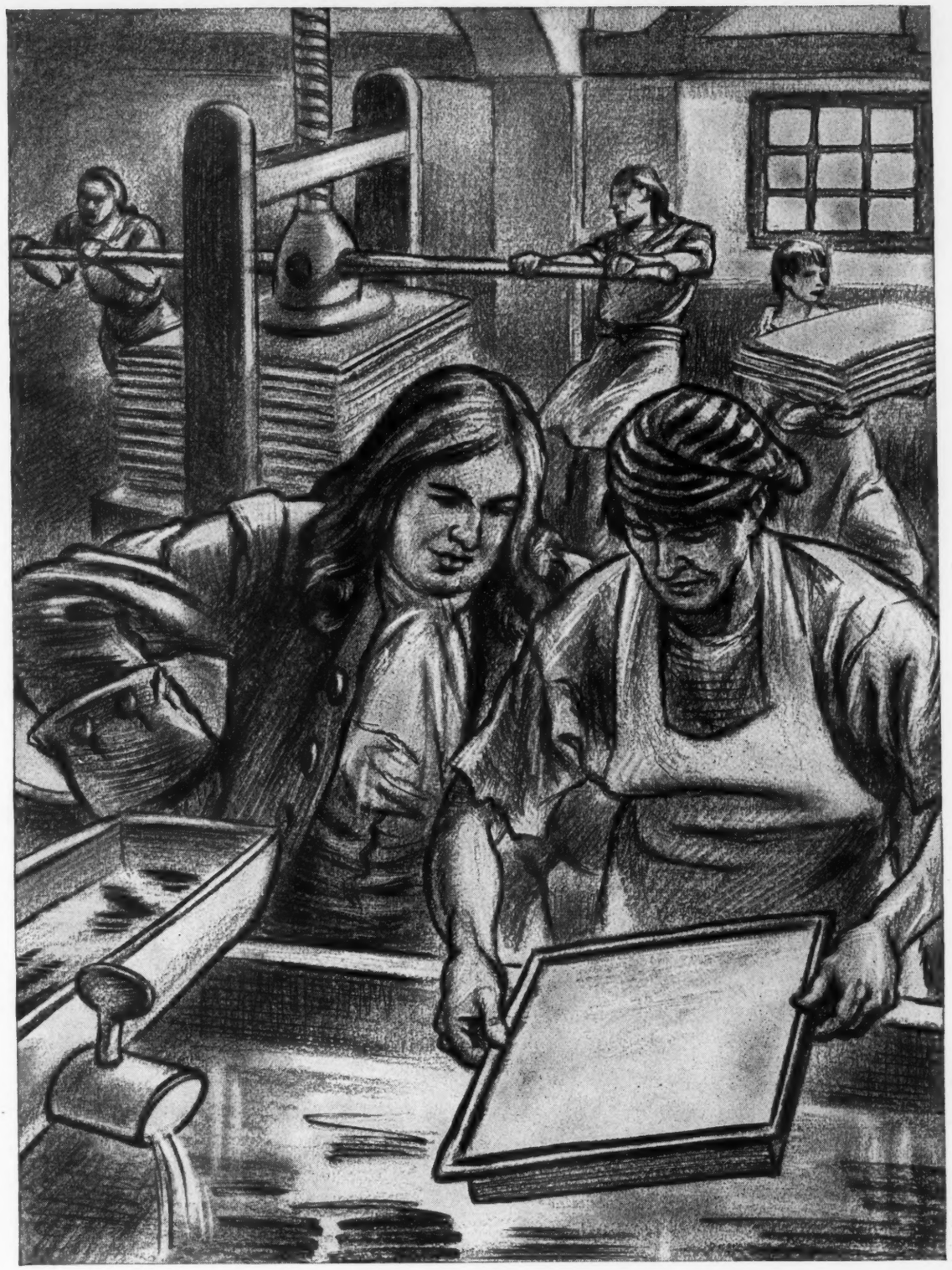
Adjustable for 12 to 18 spouts...adaptable for all size containers from a fraction of an OUNCE to a GALLON and any type of liquid *(lotions, shampoos, foods, wines, liquors)*...it is set for a wide range and high level of production. A real find!

MRM company

223 East 106th Street • New York 29, New York • LEhigh 4 - 0207 - 8

designers and manufacturers

THIS IS NUMBER SIX IN A SERIES ILLUSTRATING THE HISTORY OF PAPERBOARD AND FOLDING CARTONS



PAPERBOARD MAKES ITS DEBUT IN AMERICA

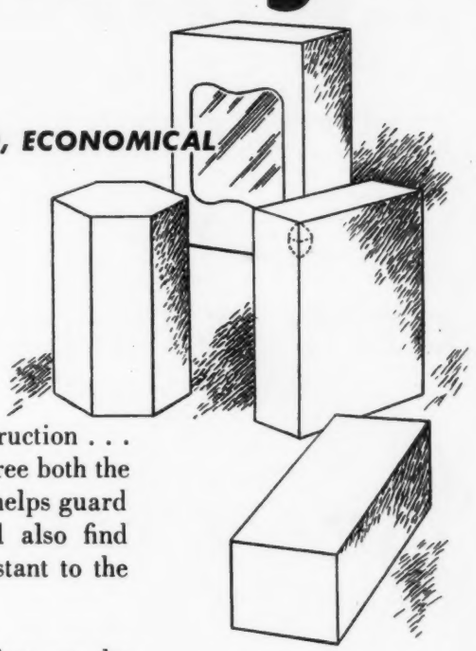
The first commercial paperboard in America was made around 1730 by the papermaker Daniel Henchman in his Milton, Massachusetts mill. It was made by hand, slowly and laboriously. The paper machine had not yet been invented, time and labor were inexpensive. Henchman's paperboard was probably used for book covers and other non-packaging purposes. More than a century passed before the first folding cartons began to appear and to become a vital factor in modern merchandising and mass distribution methods.

UNITED PAPERBOARD COMPANY, INC.
PAPERBOARD FOLDING CARTONS
285 MADISON AVENUE NEW YORK 17, N. Y.

A complete series of these illustrations consisting of 12 pictures and carrying no advertising, will be sent on request.

Maybe this is just
1. White or colored printing surface
2. Solid black asphalt center
3. Protective inside layer

the moisture-vapor resisting package you're looking for



IT'S MADE OF HYDROTITE . . . A TIME-PROVED, ECONOMICAL CARTON BOARD. AND IT'S AVAILABLE!

HERE AT GARDNER-RICHARDSON we have a broad experience in the manufacture of many types of impregnated and laminated carton boards which offer moisture-vapor protection. Of this line of boards, the oldest and most economical is *Hydrotite*.

Hydrotite is a unique board. It has a three-layer construction . . . the center layer being asphalt which retards to a high degree both the *entrance* of moisture and the *escape* of moisture. Thus, it helps guard against weight loss . . . and moisture absorption. You'll also find that *Hydrotite* keeps out harmful light rays and is resistant to the invasion of many types of bugs.

If you have a product which requires an effective (but not the very highest degree of) moisture-vapor protection, *Hydrotite* may be the answer to your needs, or you may even find that a *Hydrotite* carton will eliminate the needless expense of using an outer wrap.

It will pay you to find out! Ask us to make up some sample Hydrotite cartons. Test them in your laboratory and in your machines. Then, you be the judge. Write, today. Your request will not obligate you in any way.

The GARDNER-RICHARDSON Co.

Manufacturers of Folding Cartons and Boxboard • Middletown, Ohio

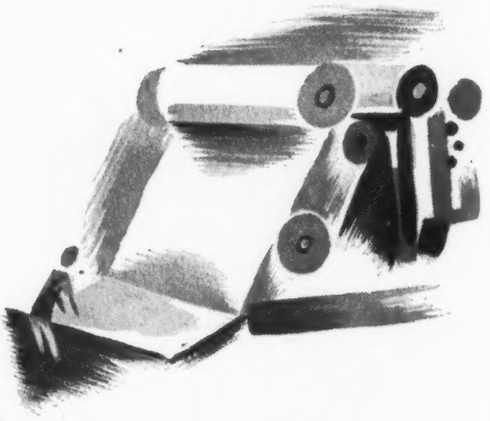
Sales Representatives in Principal Cities: PHILADELPHIA • CLEVELAND • CHICAGO • ST. LOUIS • NEW YORK • BOSTON • PITTSBURGH • DETROIT

NOW READY—

Gift Wraps

by

DECOTONE PRODUCTS DIVISION



GIFT WRAPS ☛ ***for CONVERTERS***

6 distinctive new designs. We will supply Converters in sheets or in jumbo rolls for fold packaging, as desired.

GIFT WRAPS ☛ ***for JOBBERS***

Furnished in packaged reams for the Jobbing trade. Or our facilities permit us to put up in counter rolls, if desired.

GIFT WRAPS ☛

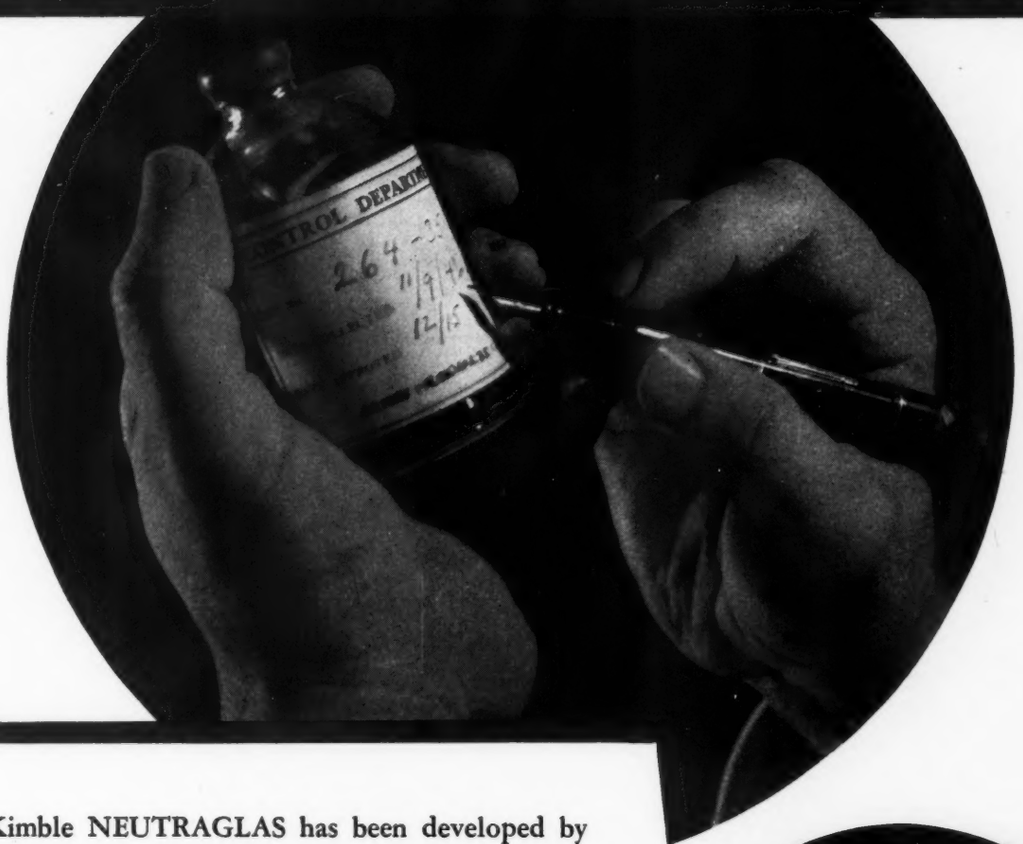
in 2 COLOR Open Designs
in 3 COLOR Open Designs
in 2 COLOR Choke Designs
in 3 COLOR Choke Designs

Put up in COUNTER ROLLS, if desired

SPECIAL DESIGNS in Gift Wrappings will be developed by our Design Service to meet your requirements, if you wish. Let us work with you. Write today!

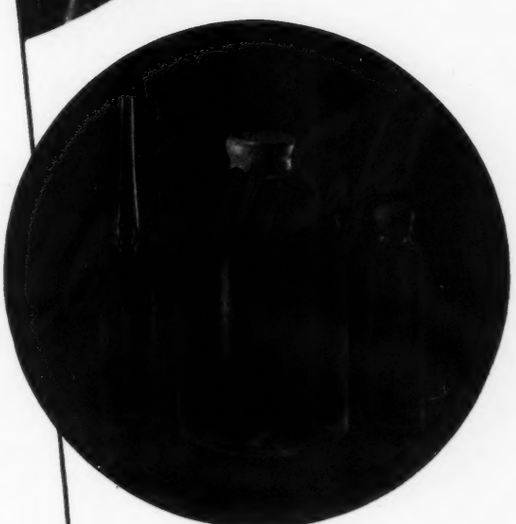
DECOTONE PRODUCTS
DIVISION
Fitchburg Paper Company
PACKAGING PAPERS *Converted Papers* SPECIALTY PAPERS
FITCHBURG, MASS.

KIMBLE NEUTRAGLAS CONTAINERS



Kimble NEUTRAGLAS has been developed by Kimble research to assure the manufacturer that the product he has held to such high standards will not deviate from his control sample because of any impairment from the container. Kimble NEUTRAGLAS is highly resistant to chemical attack and solvent action—a protective feature the medical profession recognizes as vital.

Standardize NOW on Kimble Ampuls, Serum Vials, Serum Bottles and Clinical Glass Containers made of NEUTRAGLAS (N-51A Glass)—CLINICALLY SAFE.



• • • The Visible Guarantee of Invisible Quality • • •

KIMBLE GLASS COMPANY

Announcing

1946 MODERN PACKAGING ENCYCLOPEDIA

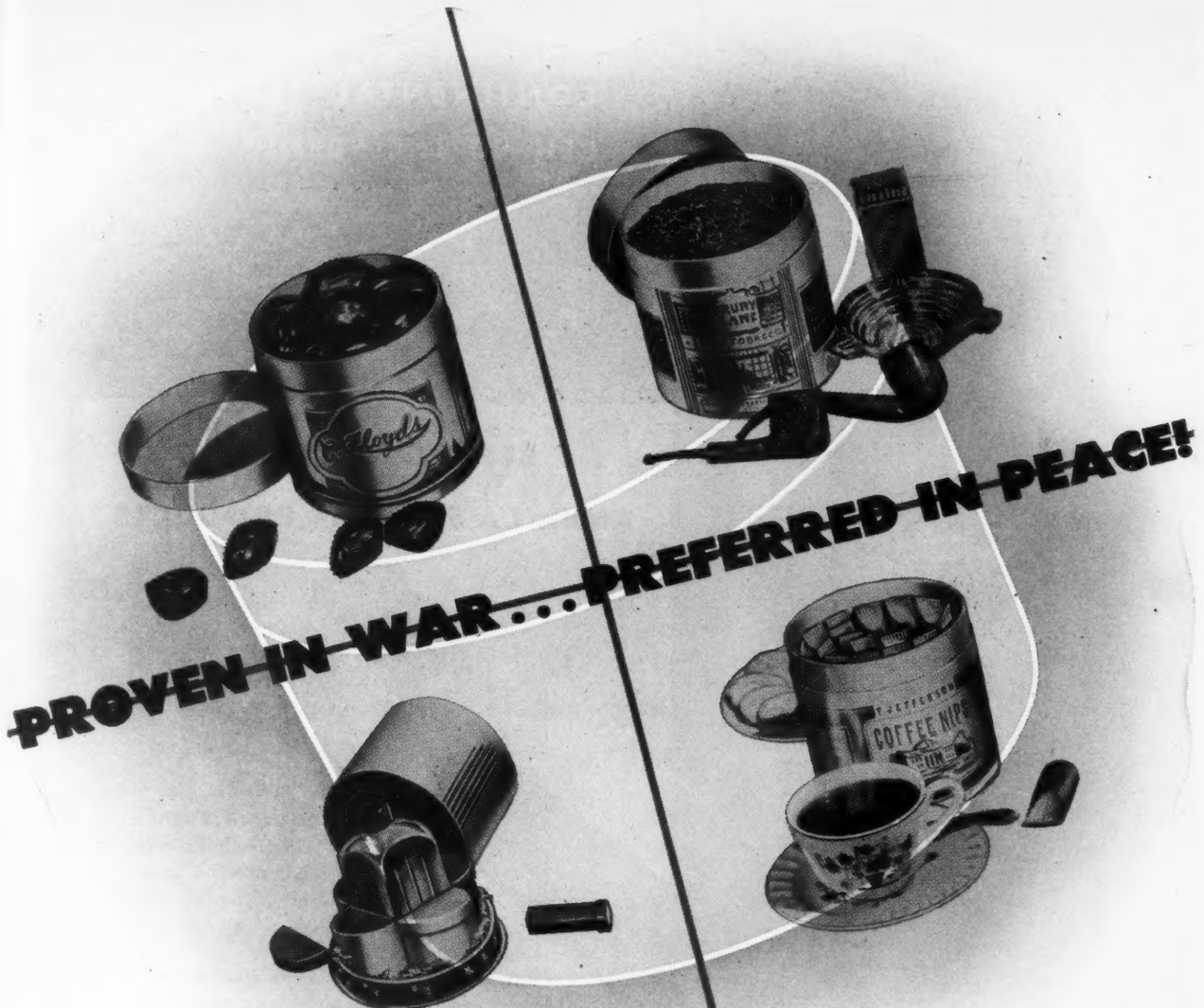
(Formerly Packaging Catalog)

Orders are now being taken for the only Encyclopedia of packaging. The 1946 edition will be considerably larger—totaling more than 1000 pages—than any previous, and will bring you up-to-date on every phase of packaging. It will cover the new materials, the new packages, the new machinery, the new techniques. It will be, more than any of its predecessors, a priceless source book of ideas, facts and inspiration for the better packaging of your goods whether your problem is marketing, storage or shipping. No matter what your product or its demands, direct clues to the answers to your packaging problems will be found in this tremendous volume. This book includes a group of directories famous for their size, completeness and accuracy—the only buyers' guides to the packaging market.

$5.00 per copy in U. S. A.
$6.00 Canadian & Foreign

PACKAGING CATALOG CORP.

122 E. 42nd Street • New York 17, N. Y.



Another wartime development, by its proven superiority has earned a preferred place in peacetime packaging. Canisters of sturdy paper-board are light, compact and attractive containers for cigarettes, tobacco, cigars, drugs and cosmetics, candy, coffee and food.

Distinctive in appearance, they provide considerable display space for your advertising message. They lend themselves to effective window and counter display, offering a sales aid at point of purchase.

Non-scratching — they have a special appeal for the housewife, who finds their re-use possibilities attractive.

Let us show you what canisters can do for your product.

OLD DOMINION *Box Company Inc.*

PLANTS LOCATED THROUGHOUT THE SOUTH
NEW YORK REPRESENTATIVE
228 EAST 45th ST., NEW YORK 17, N. Y.

CHARLOTTE • N. CAROLINA

PRECISION BUILT PAPER BOXES AND PACKAGING MATERIAL

. . . BEHIND THE LABELS OF
AMERICA'S FINEST PRODUCTS

EACH CONTAINER that comes off Continental's production lines is a finished package. It is the result of co-ordinated skill and production . . . all the way down the line.

Continental research plays a vital role too. From the flat plate, enamels, compounds, and solders, to the handling of the completed container . . . every step is planned and pre-checked by expert technicians. Thus, we know in advance what to expect of each container. That's the reason why so many manufacturers look to Continental for "the best in quality and the best in service."

CONTINENTAL
CAN COMPANY

100 East 42nd Street, New York 17, N. Y.

WE PROUDLY PRESENT

CORDWAIN

EMBOSSED ALUMINUM FOIL

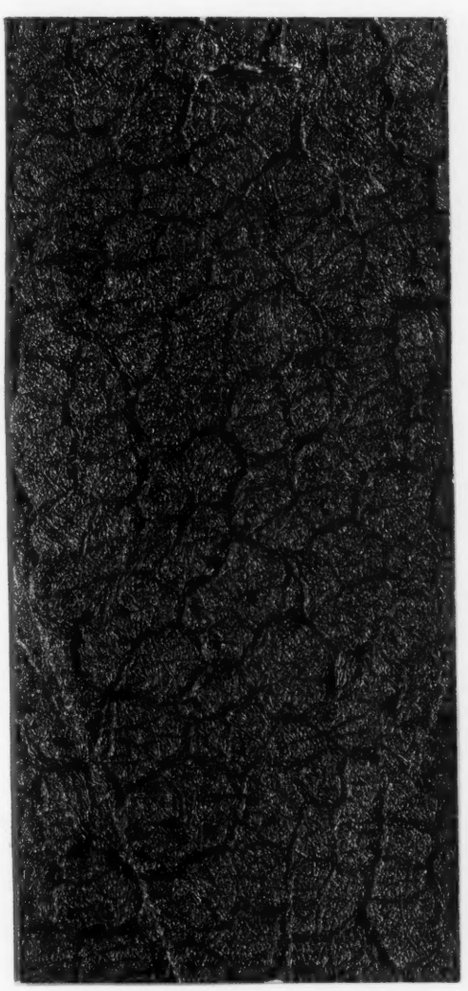
Designed for

EYEING AND BUYING

When aluminum foil returned to the civilian market a short while ago we were jubilant. So were all of our customers.

To celebrate this happy event we asked our designer to create something entirely new in foil, something really outstanding. He did. But first he went into a huddle with some leading package designers and display experts. Next he talked to the foil people, the converters and other production men. Then he went to work. Finally he came up with an inspiration.

This is it –



ROLLS 26 INCHES WIDE –

GOLD	**SILVER**	**COPPER**
GREEN	**BLUE**	**RED**

SEND FOR TRIAL SHEETS

BULKLEY, DUNTON & CO.

INCORPORATED

295 MADISON AVENUE, NEW YORK 17, N. Y.

CHICAGO 16, 2635 South Wabash Avenue • LOS ANGELES 13, 124 West 4th Street

Creative designing and restyling
Exclusively handmade boxes

by

MAKDON

in New York City

306 WEST 37th STREET • SINCE 1940

in Paris, France

STE ANONYME JACQUES MAKOWSKY
ATELIERS D'IMPRESSION ET DE CARTONNAGE D'ART
34 RUE DES PEUPLIERS • SINCE 1920

This heat-seal package for Eastman Kodak Company is formed from Alcoa Aluminum Foil combined with Eastman Kodapak.

NO LUMPS

in your hygroscopics

Do lumps somehow creep into your powders and chemicals after you *think* you've packed them airtight? Or perhaps your packaged products lose strength and taste, pick up strange odors after a few days on the dealer's shelf.

Take a tip from the new package for Kodak's Universal M-Q Developer. The two hygroscopic powders are heat-sealed in separate moisture-vapor*proof* Alcoa Aluminum Foil envelopes. These are stapled in a handy match-book cover. Each chemical remains at top strength and factory-packed dryness until the user tears off the packet corners.

One type of foil package serves for either domestic or export shipments. Packages are self-served from a convenient counter dispenser-carton, are handy for the customer to carry.

Many powdered or tablet foods, drugs and chemicals are being packed in heat-seal packages made of Alcoa Aluminum Foil. Converters of foil will be glad to work with you on a package of this type to meet your problem. For their addresses, write to ALUMINUM COMPANY OF AMERICA, 2129 Gulf Building, Pittsburgh 19, Penna.

ALCOA ALUMINUM

ALCOA ALUMINUM FOIL

THE "FLIP" TESTER

An ingenious device for looking into 1948

The "flip" tester at American Can Research Laboratories in Maywood, Illinois, plays an important part in the quality-control of cans.

It predicts the corrosion resistance of various types of steel used in making cans and thus measures accurately can-life.

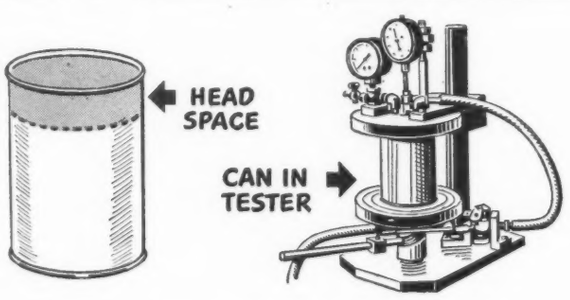
For instance, the "flip" tester tells us *today* how well a can will be holding its contents two years hence . . . in 1948 . . . or beyond.

At the beginning of the war—1942—our "flip" tester played an interesting and important *new* role. It predicted what the untried wartime plates would do before they actually did it.

So the Government knew, because we could tell them, that these wartime plates would hold the season's pack a reasonable length of time.

The "flip" tester is one of the simplest devices in the quality-control activities at Maywood. Enamels, sealing compounds, tin coatings, solder, and all stages of can manufacture are also subjected to tests more rigorous than they would get in actual use.

The purpose, of course, is to be sure that our customers get what they pay for—not "by and large"—but as close to 100 per cent perfection as possible.



HERE'S HOW "FLIP" TESTER MEASURES CORROSION

As corrosion in a can proceeds, hydrogen gas collects in head space, exerting pressure against can. "Flip" tester is applied to end, at regular intervals.

The amount of suction to "flip" can end out decreases as the gas is evolved. This measures the corrosion resistance of steel in question. Individual records are kept on each can, showing the decrease in "flip" action and the time.

American Can Co.

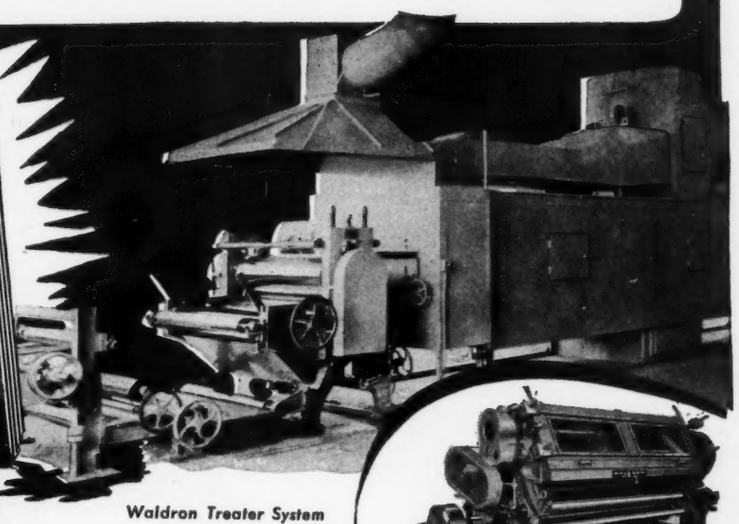
New York • Chicago • San Francisco

CANCO

No other container protects like the can

Plastics *Treated* Papers
provide remarkable new materials

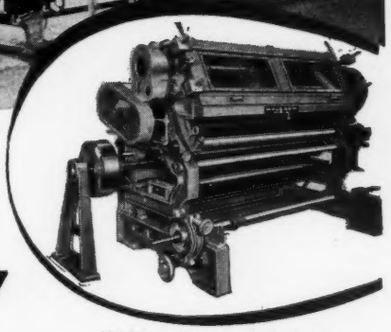
Reduced reproduction of article published in May issue of Plastics magazine.



Waldron Treater System

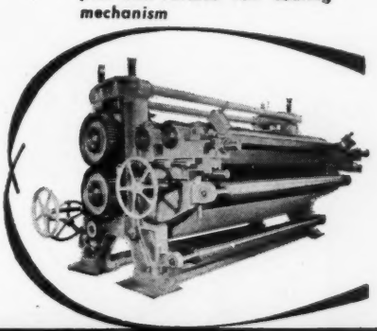
and the machines that make them possible are built by

WALDRON



Waldron Reverse Roll Coater for applying plastics solution

Waldron Treater Head equipped with reverse roll coating mechanism



The Waldron Treater System illustrated above is a complete machine line consisting of Waldron mechanical treating apparatus in tandem with Ross Engineering air processing apparatus.

They're the talk of the industry—Paper, Plastics and the WALDRON machines that wed them! Paper not only takes on new appealing beauty but achieves new desirable properties of strength, durability and resistance to heat and moisture. Whatever the specific treatment required, WALDRON machines are available to complete the job from unroll, thru treating and curing to the final rewind. Our Catalog No. 112 will point the way to new horizons for paper makers. Consult us on the possibilities for your product.

JOHN WALDRON CORP.

Main Office & Works – NEW BRUNSWICK, NEW JERSEY

CHICAGO - 6
201 N. WELLS ST.

NEW YORK - 17
350 MADISON AVE.

BOSTON - 9
79 MILK ST.

BUILDERS OF QUALITY MACHINES SINCE 1827

Arnrus

PLASTIC PRODUCTS PRODUCE SALES!

Whether it be in wearing apparel, other consumer products or product packaging, the purchaser is increasingly aware of the shimmering beauty of transparent plastics. Yes, it's in the sales world of plastics that profits will be made — for it is here, in custom-made transparent packages, that the true worth of products shine forth.

That's why we were happy to exhibit the variety of our Arnrus Products at the recent National Plastics Exhibition at Grand Central Palace, New York. That's why we'll gladly help you hit the bull's-eye of sales appeal with a full line of better plastic.

Write for full information

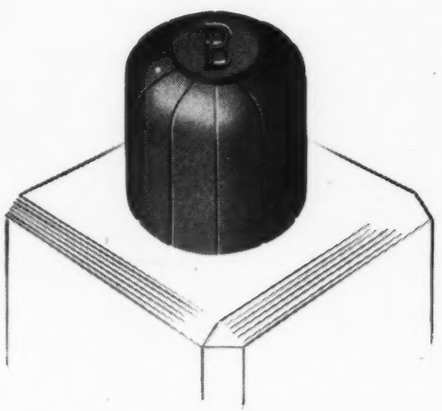
All Shapes
All Protected
All Textures

NATIONAL TRANSPARENT PLASTICS COMPANY

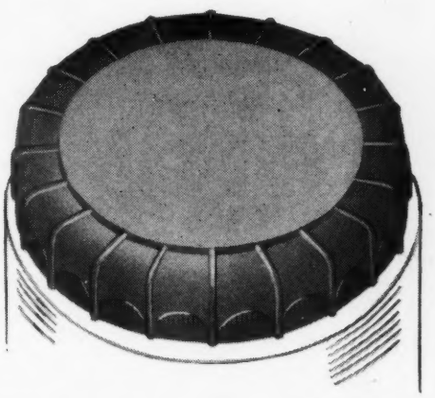
SPRINGFIELD MASSACHUSETTS

Sales-building design suggestions for your private mold caps

PREPARE YOUR PACKAGE NOW for tomorrow's battle for customers. Give it the business-building style, distinction, and beauty of an Armstrong's Artmold Cap. For design suggestions, send sample or drawing of your package to Armstrong Cork Co., Glass and Closure Div., 5906 Prince St., Lancaster, Pa.

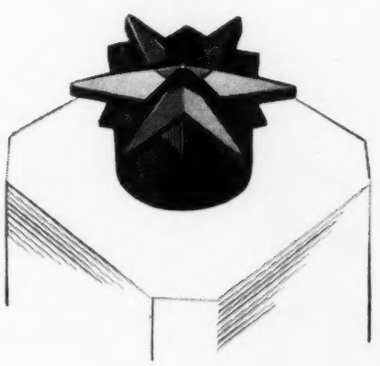


DRAMATIZE your package, give it the extra style and distinction that sell "luxury trade" items, with a tall, graceful, monogrammed Artmold Cap.



KNURLED EDGE speeds capping and uncapping, adds distinctive beauty, too. Use Artmold Caps to make your package easier to handle, give it eye-appeal.

SMART, MODERN Artmold Cap designs like this are being used in increasing numbers to lend a distinctive touch of style to packages designed for men.



DECORATIVE STAR DESIGN is one of an unlimited number of eye-catching effects available in Artmold Caps and used to build product identification, boost sales.

ARMSTRONG'S *Artmold* CAPS
PLASTIC

Your *Carton*

IN YOUR CARTON SEEING IS BELIEVING

Clean as a whistle — bright as enamel — smooth as silk — these fine qualities feature cartons of RIDGELO Clay Coated Boxboard.

In fast, competitive markets the first impression made by clay coated boxes is always a good one. And good looking cartons make better selling products.

Invite a ready acceptance for your product by specifying RIDGELO Clay Coated. Your cartons will reflect the difference. This highest grade boxboard is the accepted quality standard of leading independent boxmakers.

Ridgelo CLAY COATED BOXBOARDS

MADE AT RIDGEFIELD, N. J., BY LOWE PAPER COMPANY

Representatives

H. B. Royce, Detroit • Norman A. Buist, Los Angeles • A. E. Kellogg, St. Louis • Philip Rudolph & Sons, Inc., Philadelphia

"Brighten the Corner...."

Restrictions . . . and rationing. The home, foundation of the nation, etc., getting shabbier. And America, I Love You, getting less likely looking day by day.

To the aid of civilians came Sherwin-Williams and its affiliated companies, with Kem-Tone, Miracle Wall Finish. Goes on over wallpaper. With a Roller-Koater or a brush.

And to the aid of S-W, came Einson-Freeman with a display demonstrator, pallidly pictured on this page. It comes packed in a carton; can be assembled by any not-so-bright salespeople the paint store happens to have around. It features the Roller-Koater, permits customer participation . . . proves that you, too, can cover up drab walls, beautify your castle without a foreman painter on the premises.

Part of the act was also a swatch tablet showing Kem-Tone colors and suitably matching wallpaper trims.

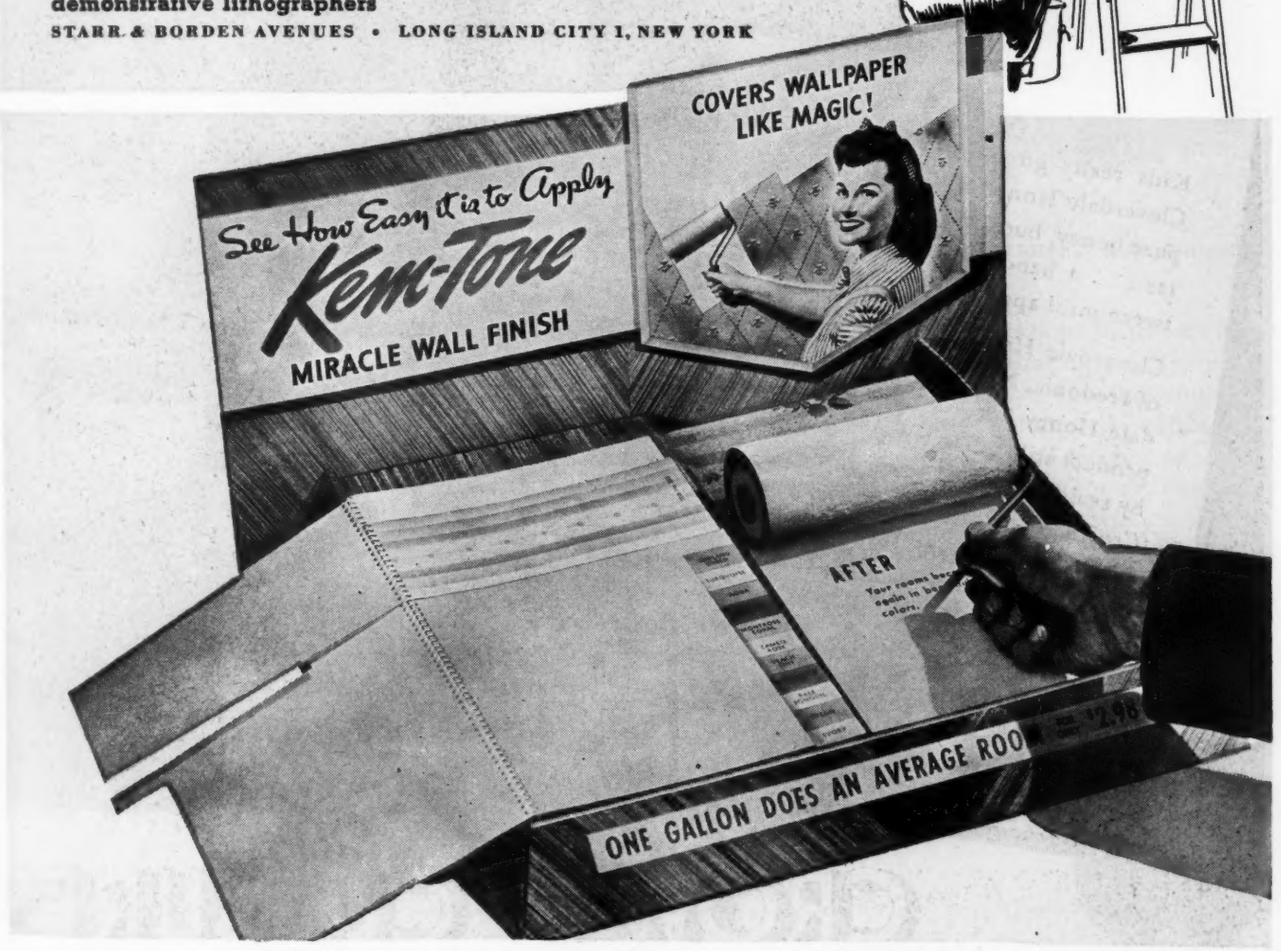
DID the Kem-Tone demonstrator display do its stuff?...Well, all we know is what we read in the S-W dealer reports...Of the hundreds in metropolitan markets queried—50% were enthusiastic, 30% favorably impressed, 15% doubtful, 5% no opinion...Later 25% said it helped sell Roller-Koaters and 50% said it boosted trims sales...Not bad at all, do you think?

Einson-Freeman ideas are not restricted to Sherwin-Williams. You, too, can get on the E-F Bandwagon of better sales through better displays ...Phone, wire, write—and we'll get on the job.

EINSON-FREEMAN CO., Inc.

demonstrative lithographers

STARR & BORDEN AVENUES • LONG ISLAND CITY 1, NEW YORK



For that "After School Snack"
Kids really go for this easy to use Cloverdale Honey Spread. It's 100% pure honey, but spreads just like butter . . . a handy solution to the between meal appetite problem.
Cloverdale Honey Co-operative, Inc. of Fredonia, N. Y., packers of Cloverdale Honey Spread, have made their product still more convenient to use by sealing it with Crown Screw Caps. Crown *patented* Deep Hook Thread Screw Caps seal tighter and are more easily removed. Crown Cork & Seal Company, Baltimore 3, Maryland. *World's Largest Makers of Metal Closures.*
Cloverdale
HONEY SPREAD
CROWN CLOSURES

"Show Me That One, please"

. . . among competing packaged products *the one most attractively packaged* has caught her eye. She is *Mrs. America*, who buys ¾ of all goods sold at retail, and who makes ¾ of all her buying decisions at the *point-of-sale*.

ALL LEADING retail organizations—other things being equal—always display those products that come in the best looking packages. They know from *experience* that women buy *by eye*.

Never Underestimate
the Power of the Package

The package that attracts the eye, arouses interest—and makes a better impression of quality than competing packages—WINS SALES!

LET RITCHIE WORK WITH YOU to develop a better package at low unit cost. One that will instantly identify, fully protect and conveniently dispense your product—practical—production-planned—easy to fill or pack—to handle, to stack and display—but *above all* designed for eye-appeal, for quality impression—A PACKAGE THAT SELLS!

Never the Power

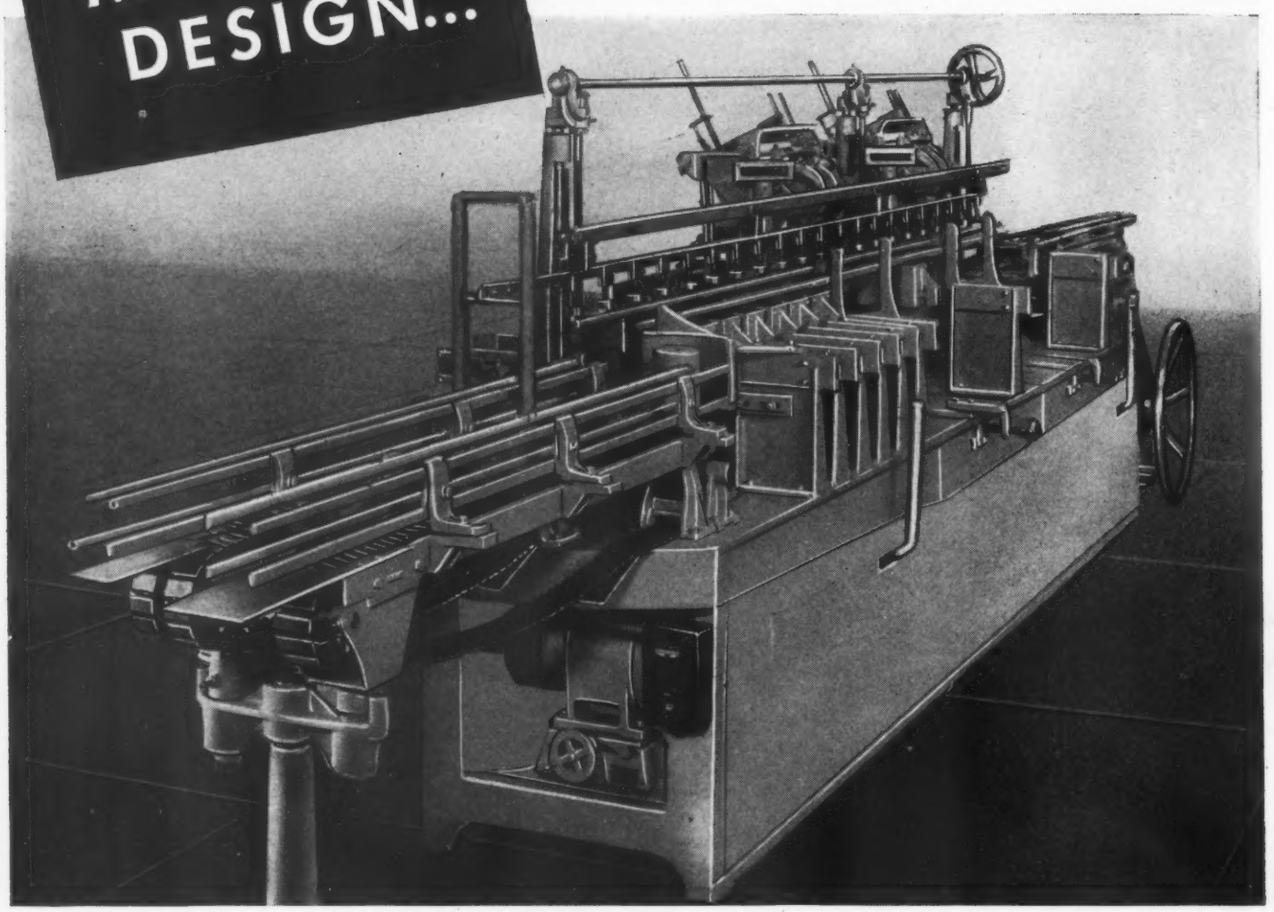
W. C. Ritchie and COMPANY
0845 Baltimore Avenue • Chicago 17
★ SET-UP PAPER BOXES
★ FIBRE CANS
★ TRANSPARENT PACKAGES

Underestimate of the Package!

NEW YORK • DETROIT • LOS ANGELES • ST. LOUIS • MINNEAPOLIS • MILWAUKEE • ATLANTA • NEW ORLEANS • DENVER • PORTLAND • SEATTLE • MIAMI

MODERN DESIGN...

Makes THE WORLD *BEE-LINE* A *HONEY* OF A LABELER



Here are some of the recent improvements in BEE-LINE design and construction that make it the ideal Labeler for smooth, firm, precise application of front or front and back labels to round, square, flat, oval or panel containers.

1. The smooth, gentle, efficient *bee-line* handling of the containers is made even more effective by a new drive for the overhead grip on each container which now pulls the containers through the bee-line instead of pushing them.

2. The Model 65 Single Station BEE-LINE and the Model 120 Twin Station BEE-LINE for double production at the same efficient labeling speed handle the same range of container sizes and have interchangeable parts and attachments.

3. When labels must be accurately located at a fixed position on the container, a new mechanical spotting device assures precise control.

4. Each container receives *three* controlled pressure wiping applications instead of the usual two. Smooth, firm, clean labeling is assured.

5. Starting and stopping the BEE-LINE is under finger tip control. Four starting levers mean maximum operation convenience.

WORLD LABELERS

Write for new Bulletin containing complete information on these and other new features of the WORLD *BEE-LINE* Labeler.

"YOU GET THE BEST LABELERS IN THE WORLD"

ECONOMIC MACHINERY COMPANY

Builders of World Automatic and Semi-Automatic Labelers for Every Purpose

WORCESTER, MASSACHUSETTS

New York Philadelphia Pittsburgh Chicago San Francisco Denver
Louisville Salt Lake City El Paso Seattle Portland Phoenix London
Montreal Toronto Winnipeg Spokane Vancouver Mexico City
Sydney, Australia Wellington, N. Z. San Juan, P. R. Ciudad, Trujillo, D. R.

FOR SET UP BOXES

Transparent Lumarith film makes the set-up box a double feature sales attraction—inviting as a mountain spring and just as hard for the shopper to pass by.

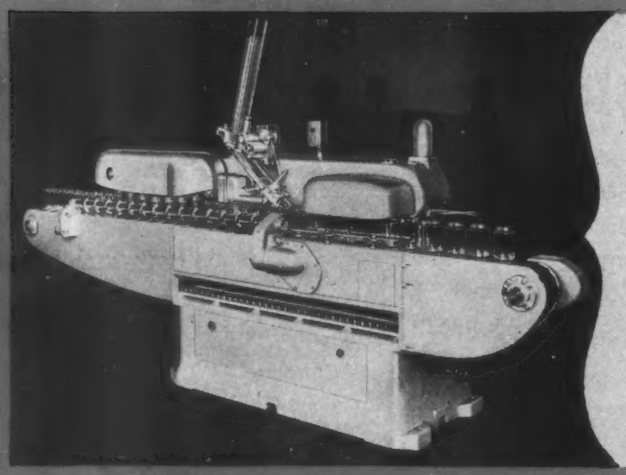
Crystal clear and easy to form, Lumarith maintains its flexibility and satin-smooth surface indefinitely. It cements easily and permanently, and will take multi-color printing as beautifully as coated paper.

For the product that deserves a showcase of its own, the set-up paper box in combination with Lumarith is the packaging method to plan on. Transparent Films Department, Celanese Plastics Corporation, a division of Celanese Corporation of America, 180 Madison Avenue, New York 16, N. Y.

* Reg. U. S. Pat. Off.

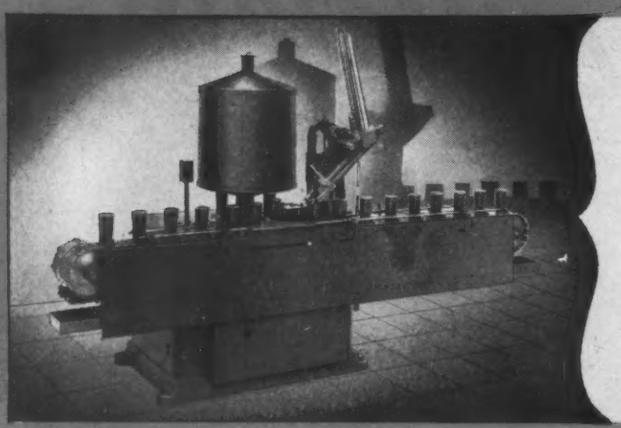
LUMARITH*

A Celanese® Plastic for Packaging



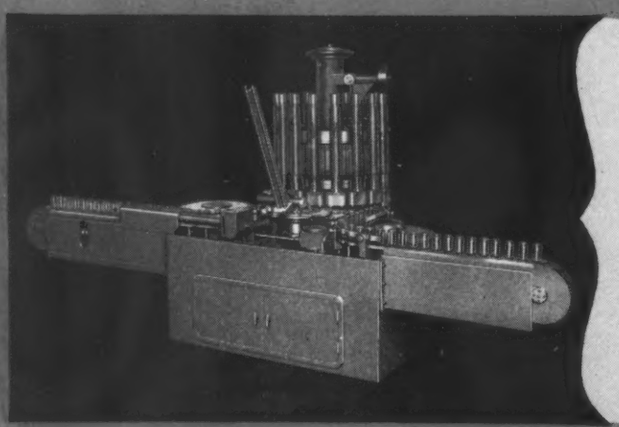
● **The new Anchor Steriseal Machine . . .**

An automatic straight line vacuum capping machine that applies Anchor AH-N Caps to glass jars and bottles at speeds ranging from 75 to 250 per minute, or more. Vacuum seal effected by means of superheated dry steam.



● **The Anchor 4 Head Rotary Sealing Machine . . .**

An automatic capping machine that applies Anchor D, T and AH-N Caps on glass tumblers, jars, and bottles with an airtight seal at speeds ranging from 50 to 125 per minute.



● **The new Anchor 16 Spindle Rotary Sealing Machine . . .**

An automatic rotary vacuum capping machine that applies 200 to 500 caps per minute—either Anchor AH-N's with a steam vacuum seal or Anchor Halyards and C.T.'s with mechanical vacuum.

ANCHORGLASS CONTAINERS

Complete Glass Packaging Service

BY ANCHOR HOCKING

ANCHOR HOCKING, with years of experience in providing dependable, complete glass packaging service to packers and manufacturers, now bring new, improved facilities to serve you better today.

Anchor Hocking manufactures a complete line of standardized Anchorglass Containers for every packaging need—for foods, drugs, chemicals, household and industrial products, liquors, beers, beverages, toiletries and many other products. And no matter what you pack or contemplate packing—you will find among the many types of Anchor metal air-tight, vacuum, screw, lug and friction type closures and molded screw caps, one ideally suited to your purpose.

To apply Anchor AH-N, D, T, Halyard or C. T. Caps with airtight or vacuum seals, Anchor Hocking makes several types of sealing machines which will apply from 50 to 500 caps per minute. Three of the more recent of these are illustrated.

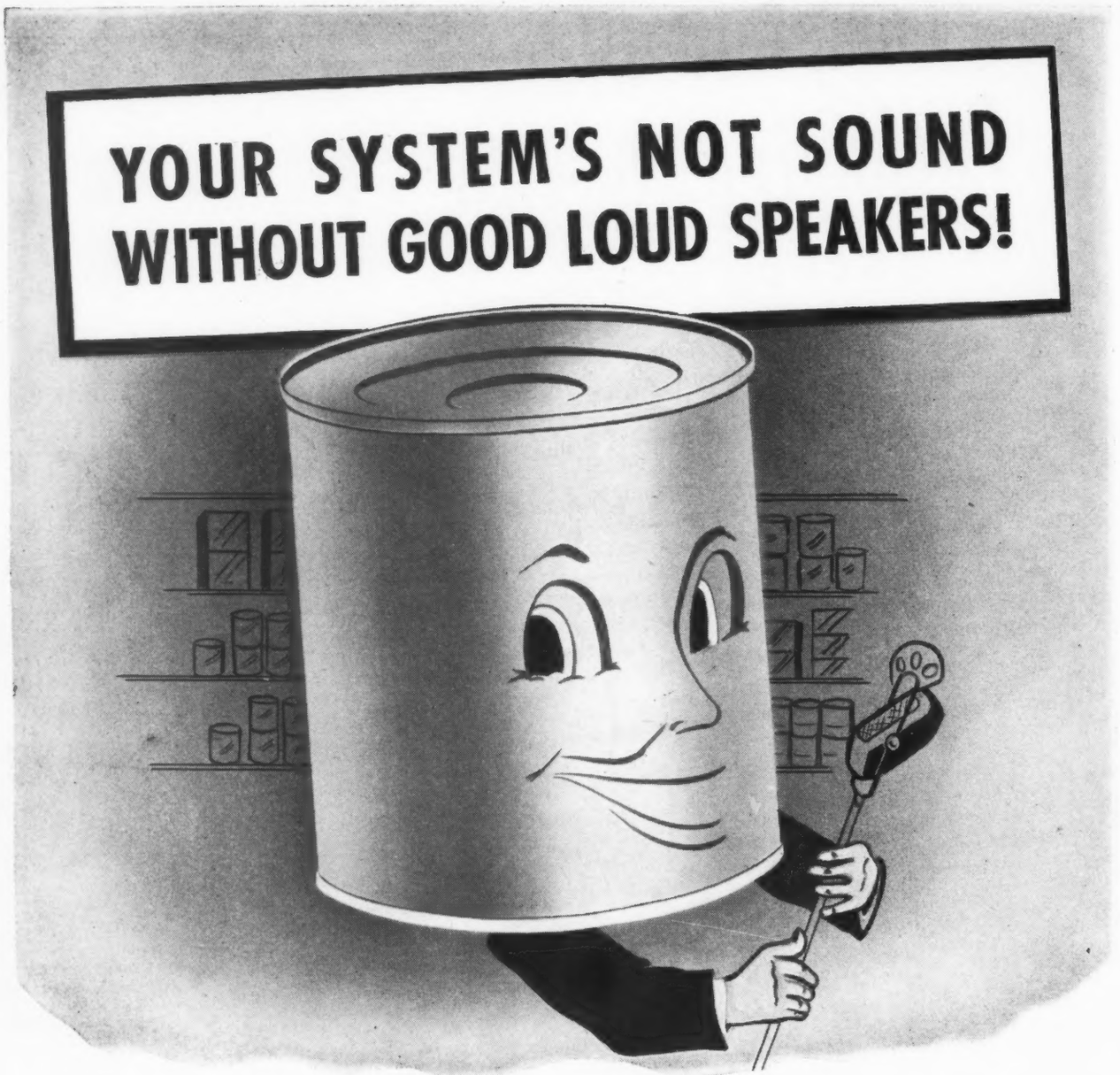
The many services of Anchor Hocking's General Packaging Research Division are available to customers free of charge. Here are the wide facilities of modern chemical and biological laboratories to help solve your problems. The Package Design Department is available to assist in re-styling packages for greatest sales appeal. When help is needed in developing better, more efficient production methods and routines, our Engineering Department is ready to assist. And, when necessary, our Packaging Research Department will aid in setting up efficient preparation and processing methods and routines.

In short—Anchor Hocking is a service organization—at your service. Our sales-service men are as near as your telephone—eager to help you as they have helped thousands of others. And our five container and three closure plants, strategically located from coast to coast and in Canada, provide the prompt, cooperative service you require.

ANCHOR CAPS for every Sealing Need . . .
Regardless of what you pack or how you pack it—hot or cold, with or without vacuum, sterilized or processed—there is an Anchor Cap to most efficiently, economically and attractively seal it.

Anchor
CONTAINERS and CAPS

PRODUCTS OF
ANCHOR HOCKING GLASS CORPORATION
LANCASTER, OHIO



Have you good loud speakers hooked up to your sound system of marketing? Do your packages shout their influence in sales volume? You can be sure they will—designed in the modern manner by ROSSOTTI!

The ROSSOTTI organization knows how to make your package design drown out competition. We have been at it since 1898. To our broad background of experience, we add progressive modern techniques. Not until we have made an exhaustive analysis of your markets, do we create your new label and carton designs. And we are content with nothing less than new packaging that is distinctively different from your competitors'!

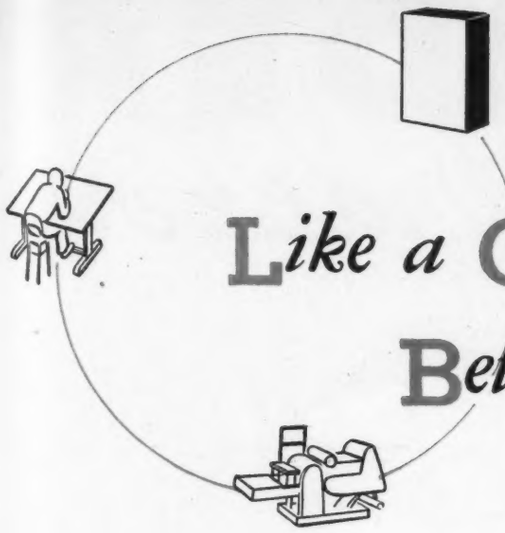
We invite your inquiry into our complete service—which features the finest color printing in our own large modern plant. Call in the ROSSOTTI consultant nearest your headquarters —without incurring obligation.

Rossotti
SINCE 1898

ROSSOTTI LITHOGRAPHING CO., INC. • NORTH BERGEN, N. J.

BOSTON 9, Mass.: 200 Milk Street • ROCHESTER 4, N. Y.: 183 Main Street, East
JACKSONVILLE 2, Fla.: 1106 Barnett National Bank Building • Chicago 11, Ill.: 520 North Michigan Avenue
ROSSOTTI WEST COAST LITHOGRAPHING CORP., 5700 Third Street, San Francisco 24, Cal.

TH CHAMPION PAPER AND FIBRE COMPANY HAMILTON • OHIO



Like a Circle, Betner *Packaging Service* *is* COMPLETE!

Users of Betner bags and Betner service read like a blue book of the food industry.

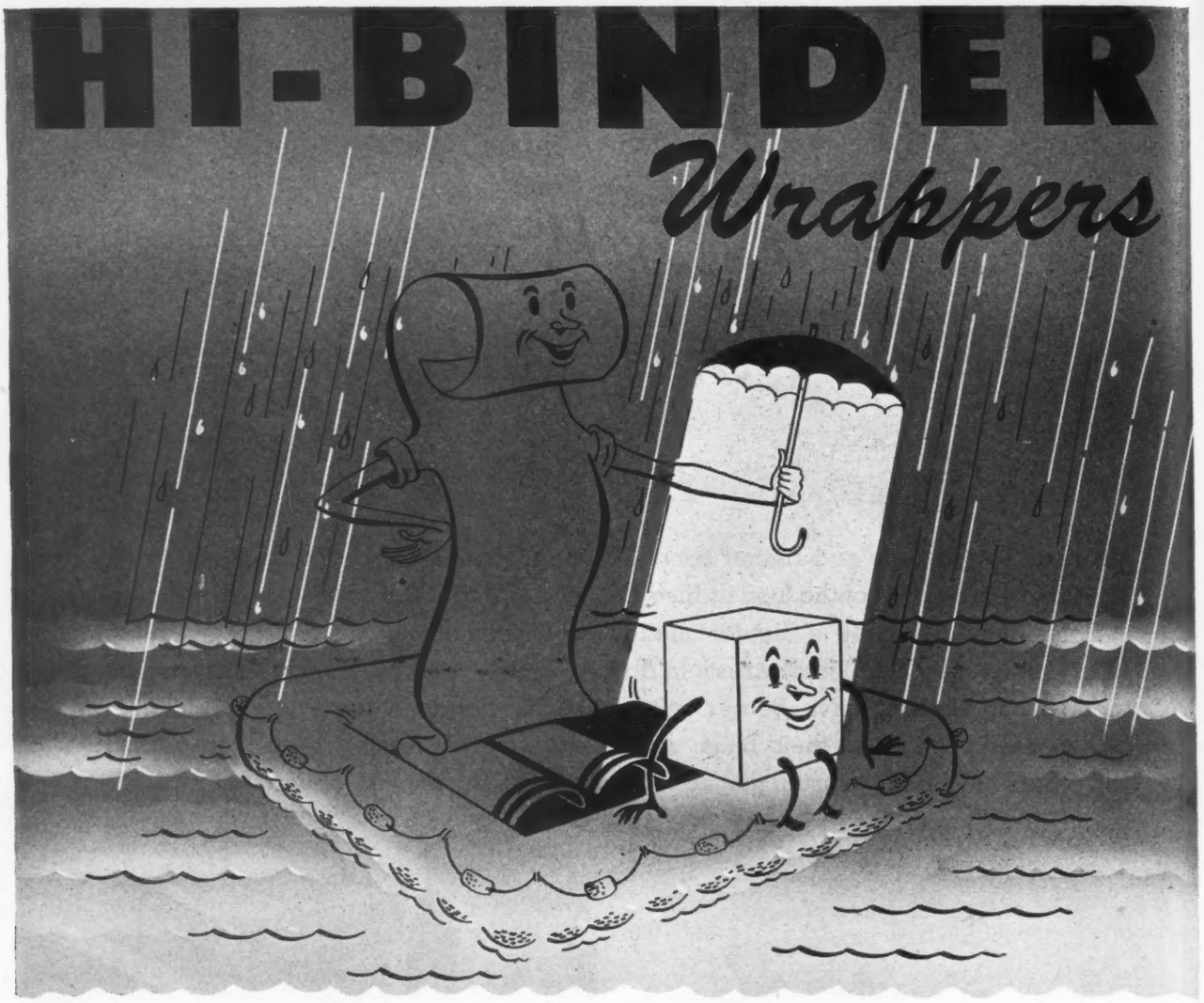
Some may use only a Betner made bag. Others may ask Betner artists to do them a bag design, have Betner printing presses print it on their bags. And still others have Betner install the modern Benco machinery, which loads and seals their product at peak speed, efficiency and economy.

From idea to package to finishing room, Betner service is complete. You are invited to use it—all or part. Inquiries invited, no obligation.

Benj C Betner Co DEVON, PA.

BENJ C BETNER CO OF CALIFORNIA, LOS ANGELES, CAL.

HI-BINDER *Wrappers*



MOISTURE PROTECTION

Whether it's preservation from the elements or the need to keep delicate moisture and aroma within the package, HI-BINDER will do a job for you. It's available at once, too!

Water-proof - Vapor-proof, moisture-proof packages in many colors, of laminated, impregnated or coated cloth, foil, paper or cellulose film. HI-BINDER is a rugged, attractive answer to your packaging problem.

SPECIALISTS IN WRAPPER PROBLEMS *Prompt Delivery*

Converted by
The Floyd A. Holes Co.,
Bedford, Ohio

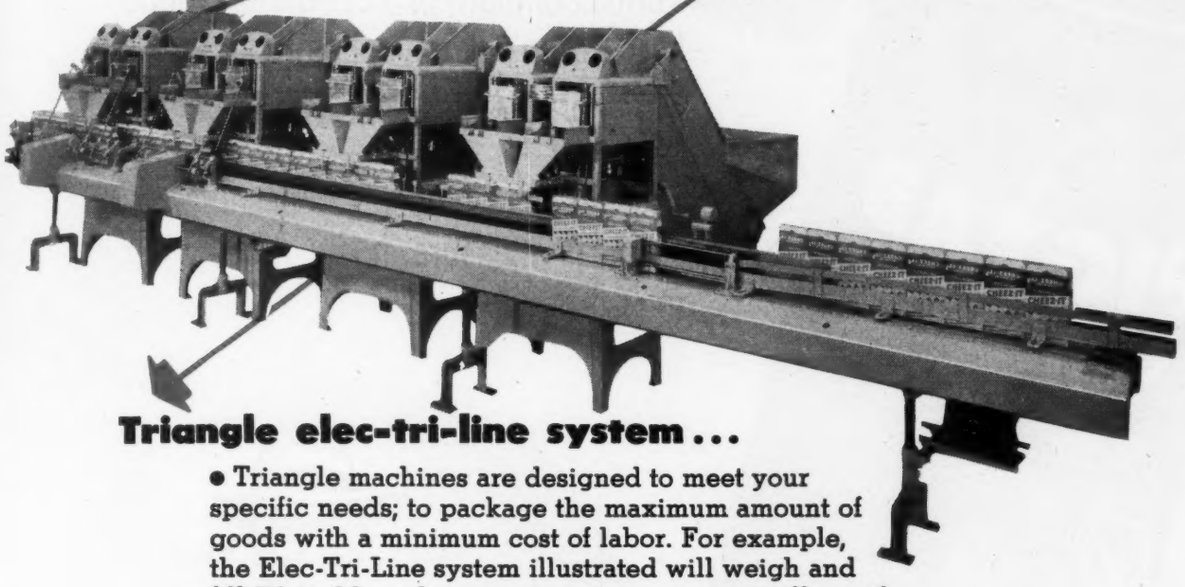
THE CENTRAL OHIO PAPER CO.

226 North Fifth Street Columbus 16, Ohio

Also in Detroit, Cleveland, Pittsburgh, Dayton, Indianapolis, Toledo, Charleston

line production

...the modern way to cut packaging costs



Triangle elec-tri-line system...

• Triangle machines are designed to meet your specific needs; to package the maximum amount of goods with a minimum cost of labor. For example, the Elec-Tri-Line system illustrated will weigh and fill 70 to 80 packages per minute, automatically, with an accuracy of plus or minus one or two crackers and without breakage! . . . How many operators would you need for comparable production?

State your production requirements and send us sample filled packages for recommendations. Write today—ask for 20-page brochure.

quick facts...

1. Simplifies packaging—increases output.
2. Provides extreme accuracies.
3. Pays for itself through reduced labor cost and speed of production.
4. Reduces breakage of fragile items.
5. Completely automatic.

Headquarters for high speed precision weighing and filling machines

TRIANGLE PACKAGE MACHINERY CO.

907 N. SPAULDING AVE., CHICAGO 51, ILL.

Sales Office in: New York; Los Angeles; Dallas; San Francisco; Denver; Cleveland; Birmingham; Memphis; North Quincy, Mass.; Montreal, Canada

RALSTON PURINA CO.
(ST. LOUIS)

finds *Sefton* Cans *Doubly Useful!*

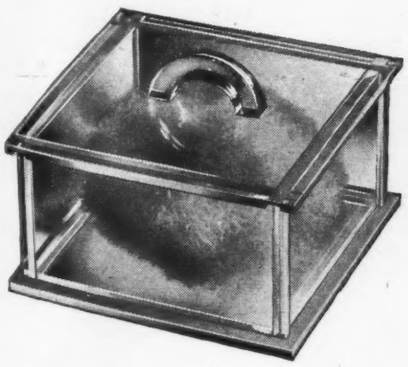
There's virtually no end to the versatility of Sefton Fibre Cans! Ralston Purina Company of St. Louis has found that Sefton's string-opening can serves a double purpose! It's a convenient container for its Pigtab Granules . . . and the easy-to-open top becomes an accurate measure for the customer to use.

Consider the string-opening can for your product ...it factory-seals your product, is tamper-proof and can be closed again, if necessary.

Sefton FIBRE CAN COMPANY

ST. LOUIS . . . . . NEW ORLEANS

DISTRICT OFFICES: • Los Angeles • San Francisco • Denver • Tampa • Chicago • Des Moines • New Orleans • Boston • Detroit • Kansas City • St. Paul Omaha • New York • Cincinnati • Cleveland • Oklahoma City • Pittsburgh • Memphis • Nashville • Dallas • Houston • Salt Lake City • Seattle



leads the way

in cosmetic containers

Few products demand more brilliance in packaging than cosmetics. Yet in this highly competitive field Styron, a Dow plastic, stands out.

It lends glamour at the point of sale. Its hard and burnished surface stops roving eyes in any array of products. Styron imparts new magnetism to goods. And it draws more buyers because of its possibilities for later use as a decorative container. In this field, Styron's qualities add up to greater sales.

Styron easily passes these tough tests—and others. For this Dow leader in plastics has myriad applications—from costume jewelry to batteries, refrigerators and automobiles. It provides stepped-up sales appeal, but wide serviceability, too.

Styron's properties* suggest broad usefulness in many products. For improved products at low cost, more and more manufacturers are realizing that Styron is the name you can *depend* on in plastics.

Let's work it out together

Success in plastics is best measured in end products. It calls for the combined efforts of manufacturers, designers, fabricators and raw material producers. Dow is ready to do its part. Call on Dow and get the most out of plastics.

RESENT AND POTENTIAL USES—Lighting fixtures and displays; insulators; hydrome-rs; battery cases; funnels; bottles; closures; food handling equipment; pharma-utical, cosmetic, and jewelry containers; jewelry; advertising items; refrigerator arts; pens, pencils; chemical apparatus; lenses; decorative objects and trim.

ROPERTIES AND ADVANTAGES—Beautiful, clear, translucent; "pipes" light through d around corners, etc.; resistant to acids and many alkalies; stable at low mperatures; excellent electrical properties; broad color range; low specific avity, providing more moldings per pound; low water absorption.

DOW PLASTICS

STYRON • STYRALOY • ETHOCEL

ETHOCEL SHEETING • SARAN • SARAN FILM

E DOW CHEMICAL COMPANY, MIDLAND, MICHIGAN • New York, Boston, Philadelphia, Washington, Cleveland, Detroit, Chicago, St. Louis, Houston, San Francisco, Los Angeles, Seattle

NEW WRIGHT MACHINES SOLVE TOUGH PROBLEMS

● Potato chips are among the most difficult products to handle but this new Wright machine automatically weighs them with an accuracy and speed previously unattainable with a single weighing unit. Hy-Tra-Lec*—a new method of weighing—is used. Other Hy-Tra-Lec machines will weigh a variety of products in charges from 1/8 of an ounce to one pound at pre-determined weights. We invite your packaging and production chiefs to observe test runs on your own products. We believe results will show you that where accuracy and speed are important, Hy-Tra-Lec excels.

** Hy-Tra-Lec (Patent Applied For)*

● "A long-sought achievement."

That's how one packaging authority describes Wright's new automatic machine for applying cellulose sealing bands to bottles.* Previously, this operation could be done by hand only.

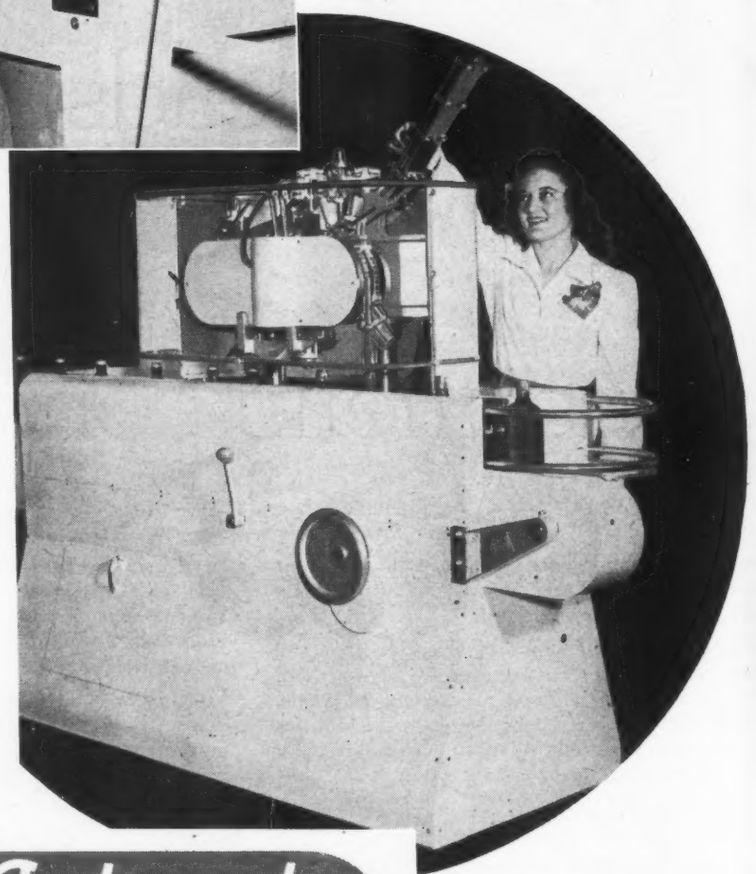
Picture shows bands being applied to liquor bottles over revenue strip-stamps.

Originally designed for liquor and wine industries, preliminary tests indicate that the machine probably can be adapted for the food, drug, and other industries.

The machine will operate at speeds from 30 per minute up to 120 per minute.

Installation of this machine, like all automatic machinery replacing hand operation, will require advance planning by those buying it. We suggest, therefore, that you make initial investigation immediately.

** Patent Applied For*



WRIGHT'S *Automatic Machinery Company* ★

DURHAM, NORTH CAROLINA

"PIONEERS SINCE 1893 IN AUTOMATIC MACHINERY"

"Let's keep this balance

when we plan our package"

IN PLANNING a package, sales advantages are a vital consideration... and the protection needed to satisfy value-conscious shoppers is equally as important. Yet you can't afford to overlook the all-important cost factor! That's why you need a *balanced* package.

You'll find this balance in Du Pont Cellophane. *Visibility* spotlights your product—lets it sell itself. The chemically tailored *protection* provided by 56 types of Du Pont transparent film (cellophane, cellulose acetate polyvinyl films) meets the requirements of a wide variety of products. What's more, Du Pont Cellophane does this job of transparent protection *at lowest cost!*

The demand for Du Pont Cellophane still exceeds the supply, but we hope the day is now not far off when our converters and ourselves can meet all requirements. E. I. du Pont de Nemours & Co. (Inc.), Cellophane Division, Wilmington 98, Delaware.

DU PONT
REG. U.S. PAT. OFF.

Cellophane *Shows what it Protects — at Low Cost*

BETTER THINGS FOR BETTER LIVING
...THROUGH CHEMISTRY

In 1887

M. Louis Chambon of Paris, France, developed and perfected the first of a long line of rotary printing presses now known throughout the world as THE CHAMBON.

In 1936

The same Chambon Family, through its Paris Headquarters, Machines Chambon, and the English branch, Chambon Limited of London, announced the opening of its American affiliate in New York.

In 1946

After almost sixty years of continuous production under one organization, serving almost every region throughout the world where printing equipment is used and after having served American Industry for ten years from the New York Office and Plant, NOW IN 1946, with the termination of the war, we can again offer you the combined services of our world-wide organization — European production, American installation and parts replacement, and services of our combined press engineering staffs.

L. CHAMBON CORPORATION

Sole American Headquarters

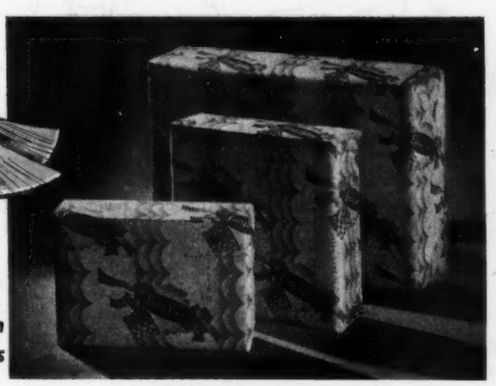
320 WEST 46th ST. • NEW YORK 19, N. Y., U. S. A.

Chambon Rotary Printing Equipment from 7″ to 28″ (Aniline, Letterpress, Offset, Rotogravure) Diecutting, Sheetcutting or Rewinding Attachments; Slitters and Rewinders from Tissue to Cardboard; Laminating and Coating Attachments. Complete line of Converting Equipment for Cigarette Papers; Box-Printing and Forming Machines (Folding and Set-up).

The Thilmany Paper Company was founded

1883

In 1895 when . . . "bertha" and leg-o-mutton sleeves were new



TODAY
new, modern design printed papers

Thilmany *made Papers with Product Identification*

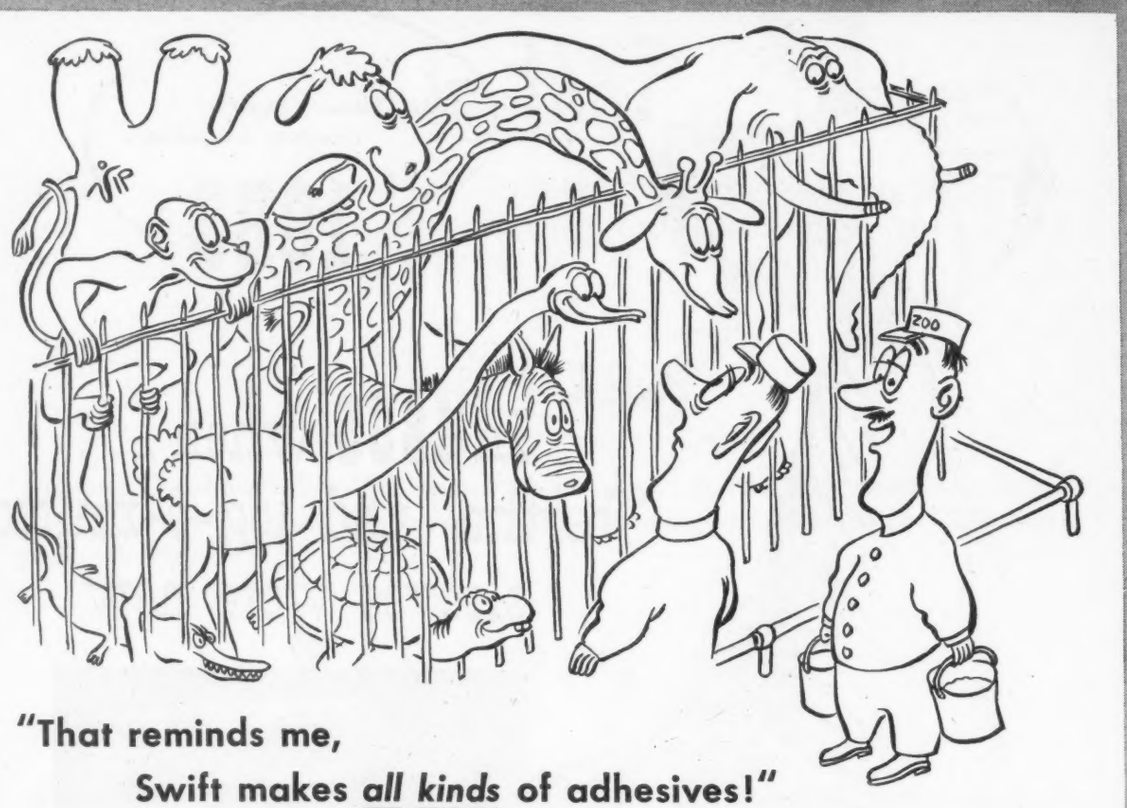
Printing protective wrapping papers with identifying trademarks, firm names and advertising messages is nothing new at Thilmany. We produced papers of this type on our "Decorator" well before the turn of the century. Two years later, in 1897 we pioneered machine watermarked papers — a process which still leads in popularity as an exceptional means of identity.

Today our mills provide thousands of tons of personalized papers in bags and wrappings. Especially designed or stock patterns are offered for every conceivable business and use, from the heaviest industry to the most exclusive shop. Basic mill stocks for such decorating include M. G. Krafts, Glassines, Greaseproofs, Wax-laminated and Waterproof papers.

"We're not new in Functional Papers"

THILCO *Functional* PAPERS

THILMANY
PULP & PAPER COMPANY
KAUKAUNA · WISCONSIN



"That reminds me,
Swift makes *all kinds* of adhesives!"

And *we'd* like to remind *you* of some *advantages* of *resin* and *rubber* adhesives:

1. FASTEST SET—Some of them set faster than any other cold glue or adhesive obtainable and will tear fibre with only five or ten seconds pressure.
2. STICK TO EVERYTHING—There's hardly any known surface that can't be glued with one of them; tin and other metals, painted surfaces, varnished or lacquered coatings, plastics, vinyl or acetate materials, etc.
3. FLEXIBLE—Many kinds make a film as flexible as a rubber band—that stays that way, forever.
4. WATERPROOF—Not "moisture resistant"—"waterproof!"
5. HEAT SEALING—After drying, a film can be reactivated (again made tacky or sticky) by subjecting to temperature of 325° F. or higher for a few seconds.

Write us for specific information and prices on resin or rubber adhesives for your particular operation.

SWIFT MAKES ALL ADHESIVES

Dextrine Adhesives • Dry Animal Glue
Liquid Animal Glue • Flexible Animal Glue • Pastes
Rubber Emulsions • Synthetic Resin Emulsions

For all uses, including:

Carton sealing • Case sealing • Mountings • Set-up boxes
Folding boxes • Flexible coatings • Bottle labeling
Can labeling • Laminating • Leather goods
Loose-leaf binders • Magazine coverings • Padding
Paper sizings • Remoistening • Tube winding
Woodworking • Many others

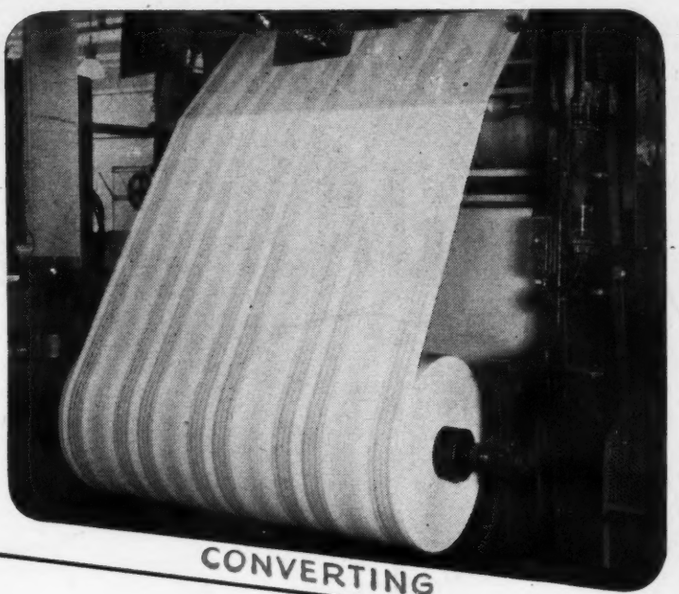
SWIFT & COMPANY

GLUE DEPARTMENT **CHICAGO 9, ILLINOIS**

Factories: Chicago, Illinois • Harrison, New Jersey • South San Francisco, California
East Cambridge, Massachusetts • South Omaha, Nebraska • South St. Joseph, Missouri
Kansas City, Kansas • Fort Worth, Texas • North Portland, Oregon
In Canada: Swift Canadian Co., Limited, Toronto, Ontario

From the moment the woodsman's axe bites into the spruce tree . . . to the time the finished package is delivered to your plant . . . there are hundreds of individual factors that contribute to the protective and merchandising efficiency of that package. To you as a package buyer, it is of primary importance that Marathon combines all these "ingredients" of quality under one management . . . one integrated responsibility. By means of this integrated set-up . . . controlling all phases of supply, research, engineering, manufacture and service . . . Marathon "builds the package to fit the job" and delivers to you a consistently higher quality product.

MARATHON CORPORATION
Menasha, Wisconsin



CONVERTING

Integrated Responsibility

ASSURES YOU A HIGHER QUALITY PACKAGE

PAPER MAKING

RESEARCH

TESTING

DESIGN

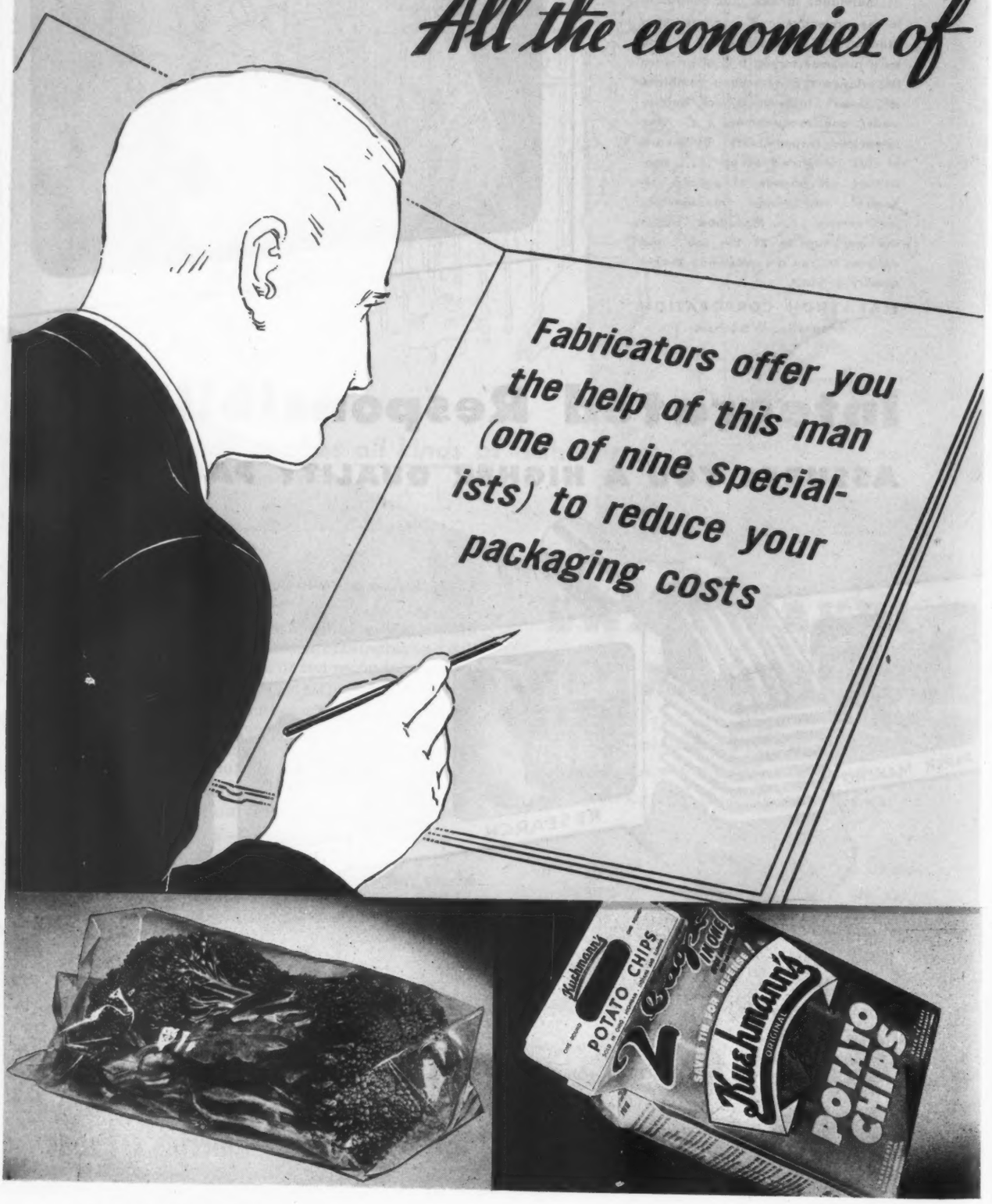
News about Marathon's pulp mill in Canada, now being built, will be announced soon.

MARATHON

First in Packaging for America's Foods

A COST-ACCOUNTANT works with

All the economies of



8 other experts to give you

FLEXIBLE PACKAGING

"WE'D LIKE TO TALK to someone who can help us improve the eye appeal and shelf life of our Soy Bean Foods—someone who can help us cut operational costs."

"Please send samples of low-cost containers for pre-packaging garden produce. We want packages that will provide good product visibility and keep shipping weights down."

"We note with interest your use of the phrase, 'the over-all economy of flexible packaging.' What, exactly, does this mean?"

To show over-all economy, a container must meet protective needs satisfactorily – must minimize shipping weights – must facilitate marketing—must create sales appeal for the product housed—must accommodate itself to your plant operation *at the least possible cost.*

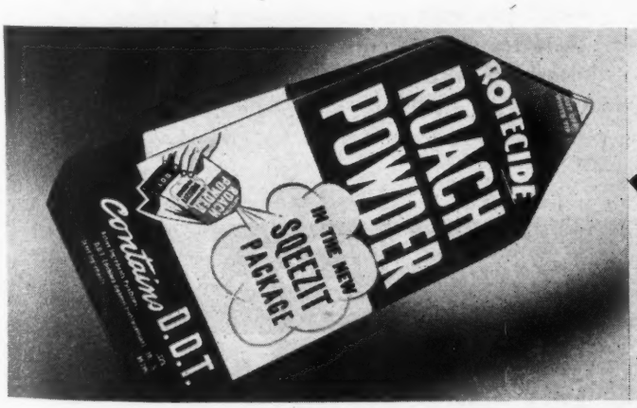
The cost accountant helps eight other specialists custom build packages providing all of these qualities. He assists them to choose the papers, films, foils, laminants and adhesives that make for *economical fabrication.*

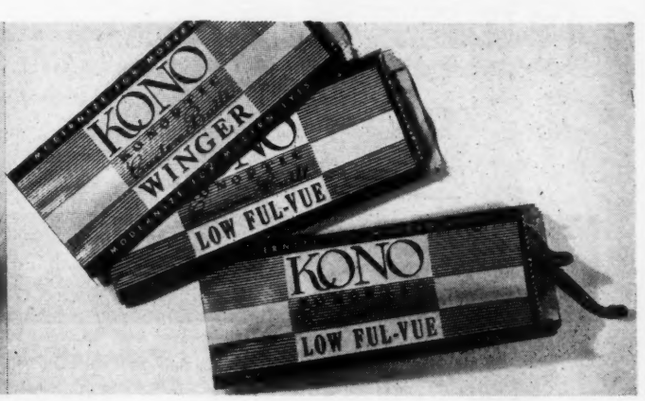
If you wish to take advantage of the efficiency and economies achieved by the cost accountant and his fellow workers, investigate flexible packaging. Simply write to the address below.

FLEXIBLE PACKAGING INSTITUTE
369 Lexington Avenue » » » » New York 17, N. Y.

MEMBER
FLEXIBLE · PACKAGING · fpi · INSTITUTE

American Bag & Paper Co., Philadelphia, Pa.
The American Paper Goods Company, Kensington, Conn. and Chicago, Ill.
Arkell & Smiths, New York, N. Y.
Arlette, Inc., Bloomfield, N. J.
Associated Paper Converting Corp., Los Angeles, Cal.
Beier & Company, Chicago, Ill.
Bemis Bro. Bag Co., Indianapolis, Ind.
Benj. C. Betner Co., Devon, Pa.
Alfred Bleyer & Co., Brooklyn, N. Y.
Central Waxed Paper Company, Chicago, Ill.
Columbia Paper Products Co., Baltimore, Md.
Cupples-Hesse Corporation, St. Louis, Missouri
Custom-Made Paper Bag Co., Long Island City, N.Y.
Diaphane Bag Corporation, Philadelphia, Pa.
Dixie Wax Paper Co., Memphis, Tenn. and Dallas, Texas
The Jaite Company, Jaite, Ohio
Kehr Paper Products Co., Philadelphia, Pa.
Kellogg Container Division, United States Envelope Co., Springfield, Mass.
Kennedy Car Liner and Bag Company, Inc., Shelbyville, Ind.
Marathon Corporation, Menasha, Wis.
Mehl Manufacturing Company, Cincinnati, Ohio
Monoca Bag & Mfg. Co., Inc., Toledo, Ohio
Moser Bag & Paper Company, Cleveland, Ohio
Oneida Paper Products, Inc., New York, N. Y.
Orchard Paper Company, St. Louis, Mo.
Paramount Paper Products Co., Inc., Philadelphia, Pa.
Thomas M. Royal & Co., Philadelphia, Pa.
Tension Envelope Corporation, Kansas City, Mo. and New York, N. Y.
C. E. Stevens Bros. Inc., Baltimore, Md.
Union Bag & Paper Corporation, New York, N. Y.



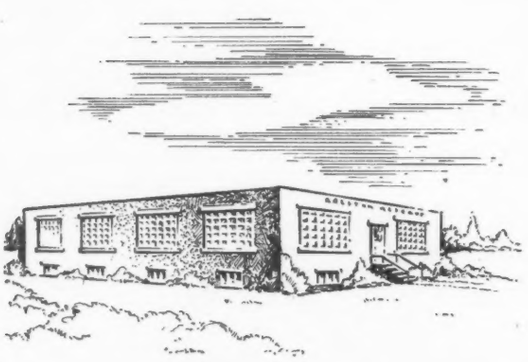


RALSTON

Packaging Papers for Industrial Requirements

No matter what measure of protection your products demand in shipping and warehousing . . . protection against water, moisture, grease, dirt, dust and other elements . . . we have a Ralston product (a waterproof paper, waterproof bag, barrel or case liner) that will do the job for you, effectively and economically

- **LAMINATED PAPERS TO MEET GOV'T. SPECIFICATIONS**
- **DUPLEX PAPERS**
- **BUILDING PAPERS**
- **LAMINATED SPECIALTIES**
- **CREPED PAPERS**
- **SATURATED PAPERS**
- **REINFORCED PAPERS**



Our experimental laboratory at Old Bridge, N. J., is today being called upon to solve a wide variety of problems in connection with industrial reconversion needs. We are ready at all times to assist you with your packaging problems. A letter will start our research engineers working on them.

W. Ralston & Co., Inc.
Niagara Falls, N. Y.

Plants at Niagara Falls, N. Y. and Old Bridge, N. J.
Sales Office, 220 E. 42nd St., New York City

DESIGNED AT NO. 1 PLASTICS AVENUE

GENERAL ELECTRIC SUGGESTS PLASTICS PACKAGING

...for cosmetics with feminine appeal

New sculptured forms, new colors, new textures can now be molded in plastics for custom packaging of distinction. This design is for cosmetics—and No. 1 Plastics Avenue can suggest plastics packaging for any other quality product.

Look to General Electric for help in styling and design . . . for precision mold making . . . for efficient and economical production of today's finest plastics packaging.

G-E designers, who have created custom packaging for many products, will give you the benefit of their long and varied experience. They will submit to you their own original designs. Or they will act as consultants to put your own designs into plastics.

G-E will advise you how best to translate your own custom packaging, in all of its beauty, from the designer's drawing board to the dealer's shelf. General Electric makes use of *all* plastics materials, selecting the best one for each job.

Why not arrange to talk over with us plastics packaging possibilities for your product? For an appointment, write to Section P-3, Plastics Divisions, Chemical Department, General Electric Company, 1 Plastics Avenue, Pittsfield, Mass.

GENERAL ELECTRIC

CD46-P3

EVERYTHING IN PLASTICS

The tube that made doctors say "Ahh-h-h"

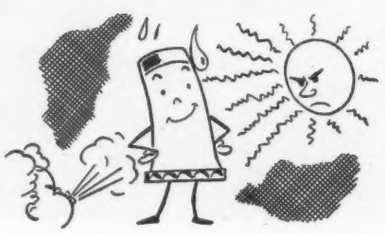
Just what the doctor ordered—Sal Hepatica's "physician's sample," distributed prior to the period of wartime shortages. *Convenient* is one word for this one-dose tube. *Safe* is another.

But when this same sample was packaged in a glass vial, *use at your own risk* would have applied more accurately.

Because, like most glass, this vial had the unpleasant habit of cracking up in packing or shipment.

To solve this problem, we of Sun Tube suggested our compact, collapsible one-shot tube. And a neat solution it was, because every symptom of package-trouble disappeared.

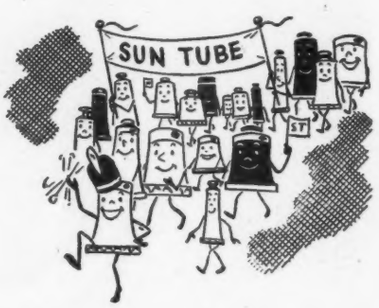
No more samples crushed or broken in transit. Instead, every sam-



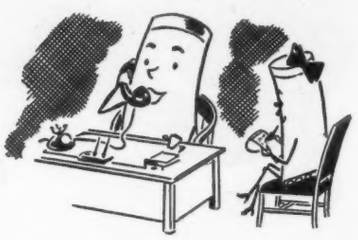
ple reached some doctor's office in perfect condition. And neither air nor moisture nor light could penetrate this special tube, not until the very moment of use.

How about <u>your</u> product?

It's entirely different? Probably. Yet perhaps your packaging problem isn't quite as "different" as you think. For almost any problem gets closer to solution when it gets this kind of design ingenuity and resourcefulness . . . a fact we have proved time and again in the case of a host of products never before considered prospects for a tube.



Is yours among them? Certainly *any* product will benefit from perfect packaging in the race for markets that is only just beginning!



Plenty of reason, it seems to us, for getting in touch with Sun Tube. A phone call or letter to our nearest representative will do it. Or to our main office at 181 Long Avenue, Hillside, N.J.

Sun Tube Corporation

HILLSIDE · NEW JERSEY

CHICAGO 1, ILL.
James L. Coffield, Jr.
360 No. Michigan Avenue

ST. LOUIS 1, MO.
M. P. Yates
Arcade Building

ST. PAUL 1, MINN.
Alexander Seymour
615 Pioneer Building

LOS ANGELES 27, CALIF.
R. G. F. Byington
1260 North Western Ave.

CINCINNATI 8, OHIO
Ralph H. Auch
3449 Custer Road

Christmas 1946...

will be a pageantry of color and design. Beautiful boxing and packaging will bring your products to the fore. . . .

Start with

PERFECTION DECORATED PAPERS

Write us for suggestions

to suitably present your products

THIS SAMPLE: PATTERN 585-2 RED SUEDE BASE

Available in several color schemes

ROYAL PAPER CORPORATION

Manufacturers of Decorative Papers

210-216 ELEVENTH AVENUE • NEW YORK 1, N. Y.

PAX TAPE QUALITY IS BETTER FOR BETTER PACKAGING

Packaging designers are partial to PAX TAPE because of its uniform dependability in the solution of many modern packaging problems.

PAX TAPE seals instantly without moistening. It sticks stronger, lasts longer.

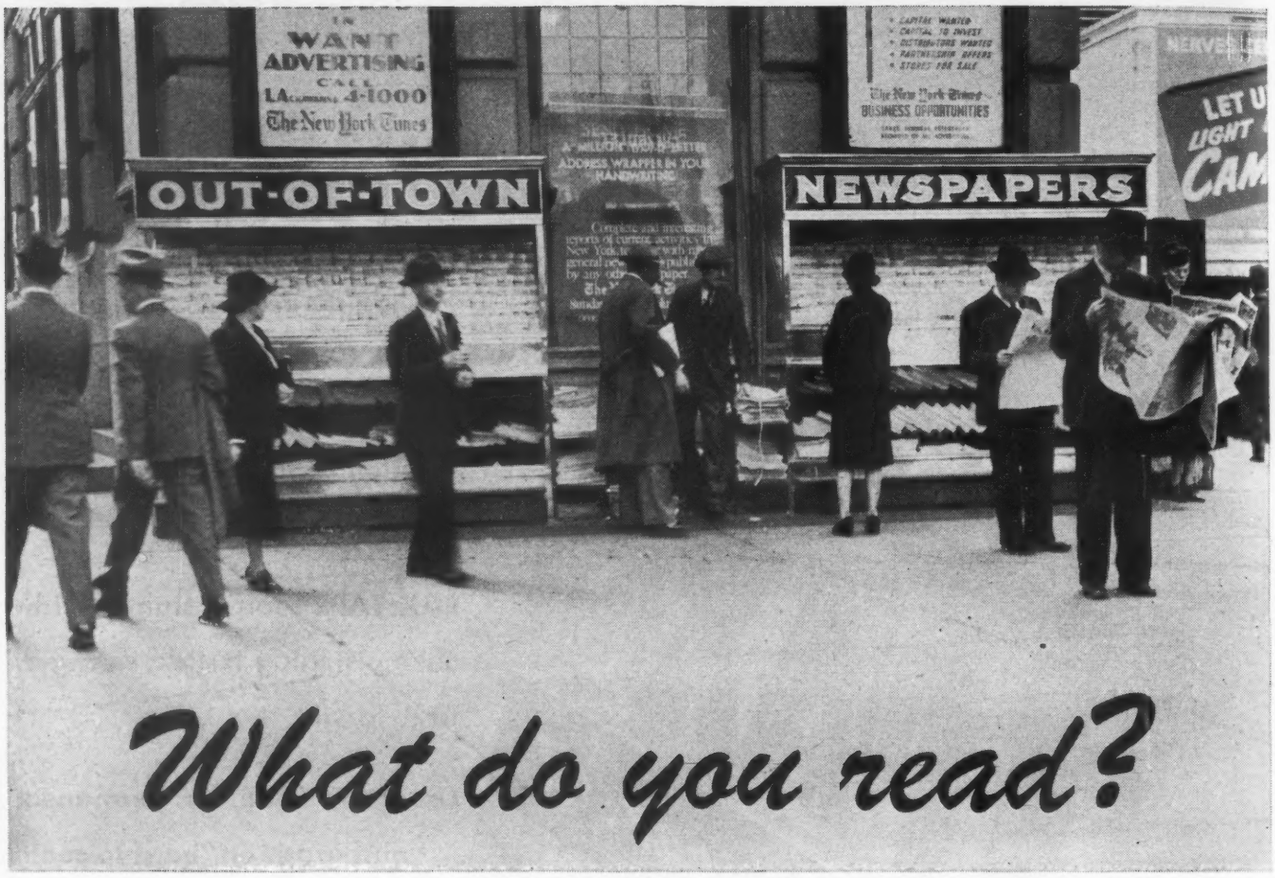
Use PAX TAPE for permanent anchorage on "hard-to-seal" packages and containers; and for many types of protective wrapping. PAX TAPE smartens up the package while doing an effective utility job.

TRY PAX TAPE

The BETTER Tape

Transparent and in Colors

THE COFAX CORPORATION • Lynbrook, N. Y.



What do you read?

The big city's out-of-town newspaper stand simply asks "What do you read?" and pulls your paper out of the rack.

Riegel is a striking parallel in the packaging and specialty paper field. It's "What do *you* need?" and the chances are that such a paper can be found in the Riegel Files, which contain more than 600 different grades of paper for packaging, printing, converting and special industrial uses.

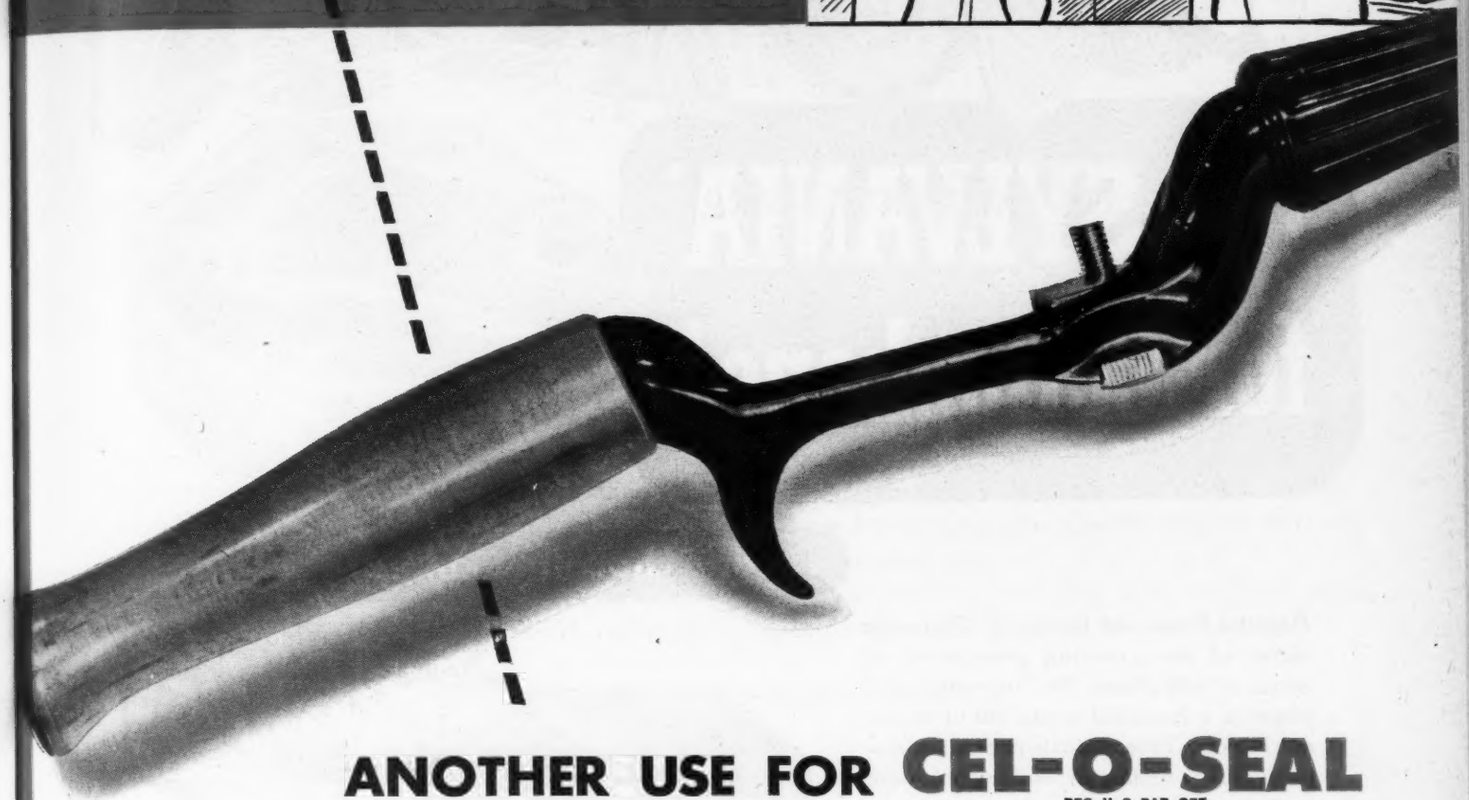
Where a standard paper won't quite do, Riegel can often combine different properties in a special paper to meet your needs. Why not contact Riegel now—and pave the way for improvements in your operations when paper becomes freely available again?

600 RIEGEL *Papers*

Riegel packaging papers include glassine, greaseproof, sulphite, wet-strength . . . printed, embossed, resin-impregnated, laminated, oiled, lacquer-coated, waxed, dry-waxed . . . as well as printing papers, converting papers and special industrial papers in endless variety.

RIEGEL PAPER CORPORATION • 342 MADISON AVENUE • NEW YORK 17, NEW YORK

No "Shopping Wear" on this Cork Grip



ANOTHER USE FOR CEL-O-SEAL
REG. U. S. PAT. OFF.

You may not be able to see the "Cel-O-Seal" on this Shakespeare fishing-rod handle—but it's *there*...a transparent band that protects the cork grip against handling in the store. It keeps the cork clean and fresh . . . yet does not interfere with display.

Perhaps "Cel-O-Seal" bands can do a protective and merchandising job for you. They're available in a wide range of sizes and colors . . . can be indelibly printed with any message you wish. Easily applied by hand, they shrink to a tight, strong fit. We'll be glad to discuss with you any application you have in mind.

"Cel-O-Seal" cellulose bands are manufactured by E. I. du Pont de Nemours & Co. (Inc.), Wilmington 98, Del. Also sold by Armstrong Cork Co., Lancaster, Pa., and I. F. Schnier Co., San Francisco, Cal.

DU PONT "CEL-O-SEAL" BANDS

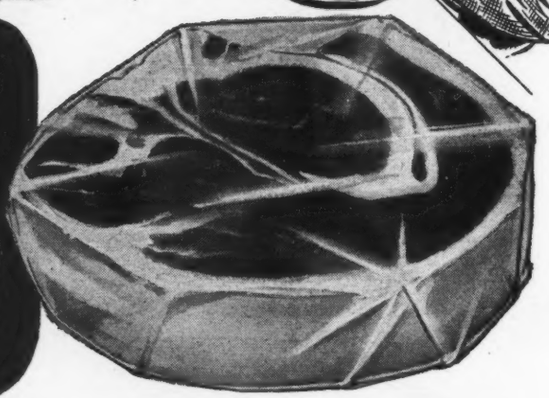
DU PONT
REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING
...THROUGH CHEMISTRY

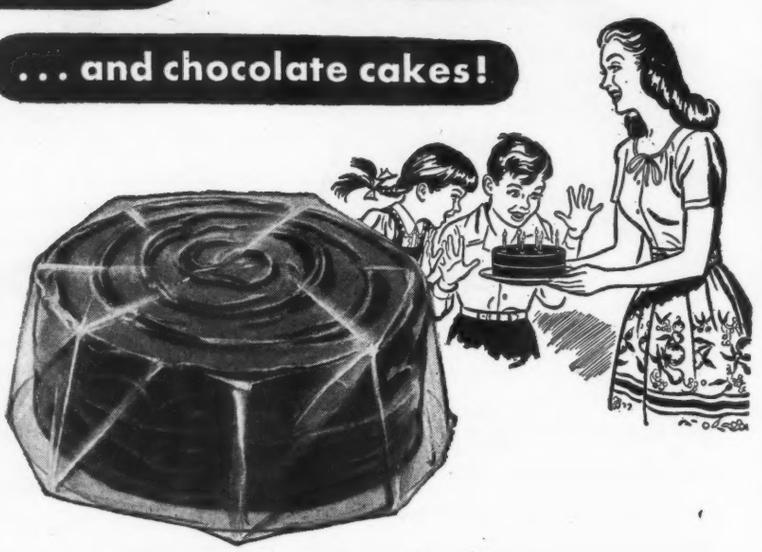
To protect kisses

... and steaks

It's SYLVANIA for Cellophane!



... and chocolate cakes!



Assured flavor and freshness! That's the secret of the growing popularity of Sylvania Cellophane. Yes, Sylvania Cellophane is a beautiful wrap, but it is also much more. This versatile packaging material guards against air, dust and moisture ... keeps the product in tip-top condition from processor to consumer!

Don't overlook today's improved Sylvania Cellophane. It offers even better protection and more beauty. We hope that soon even more will be available for every requirement.

SYLVANIA CELLOPHANE

Made only by SYLVANIA INDUSTRIAL Corporation

Manufacturers of cellophane and other cellulose products since 1929

General Sales Office: 122 E. 42nd St., New York 17, N.Y. ★ *Plant and Principal Office:* Fredericksburg, Va.

SYLVANIA CELLOPHANE

● Reg. Trade Mark

Package Printing Problems?

NEW HYDRY BOOKLET TELLS LATEST DEVELOPMENTS IN FAST-DRYING, ODORLESS INKS

This illustrated booklet gives detailed information for use of the most important package-printing development in years . . . HYDRY moisture-set inks.

If you print or use packages for milk, cheese, butter, shortening, meat, cakes, bread, cereals, ice cream, sugar, flour, chewing gum, candy, tobacco or any one of numerous other products, this free booklet can save you money, help boost your sales-volume by showing you specific ways HYDRY outperforms other inks.

Check your big packaging problem at left. Then write on your letterhead for this new booklet.

Check your package-printing problem against HYDRY'S features

- **Fast Drying**—Dries on most stocks in 10 to 30 minutes; on presses equipped with steam applicator, dries *instantly!*
- **Odorless**—Finished prints entirely devoid of ink odor.
- **Brilliant Colors**—Ink film reflects light, gives superior brilliance and cleanliness.
- **Non-Offset**—Possibilities of offset reduced to a minimum.
- **Non-Smear**—Dry-hard finish extremely resistant to rubbing and smearing.
- **Non-Crystallizing**—Can be overprinted, even after several weeks.
- **Sharper Printing**—Does not spread or bleed.
- **Folding Qualities Improved**—Affords better moisture content in paper stock.
- **Improves Heat-Sealing of Waxed Wrappers**—Will not mix with wax film during heat-sealing operations.

hydry

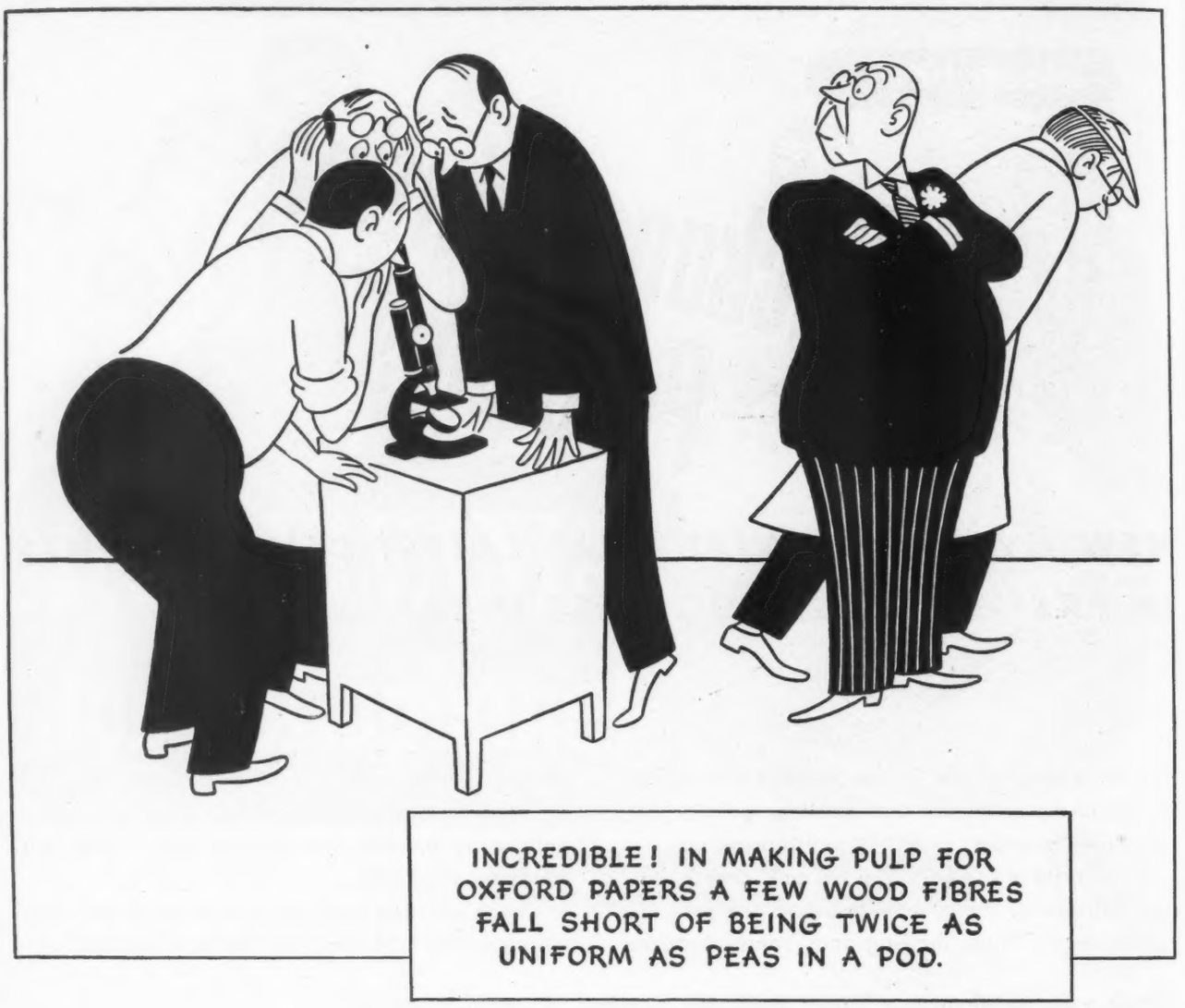
GENERAL PRINTING INK COMPANY DIVISION

Sun Chemical Corporation, 100 Sixth Avenue, New York 13, N. Y.

Sun CHEMICAL CORPORATION

American Printing Ink • Eagle Printing Ink • Fuchs & Lang • Geo. H. Morrill • Pacific Coast • Sigmund Ullman • E. J. Kelly Company

Near Crisis at Oxford Paper Company by Tony Barlow



OXFORD makes its own pulp of many varieties for the 101 different kinds of quality paper it produces.

There in a nutshell is one basic reason why such high standards of quality can be set and maintained for all Oxford papers.

Not only do we take extreme care in making pulp—not only have we huge wood reserves on which to draw—we also do *everything* right through to the finishing of our papers. Oxford is completely integrated.

There are other good reasons for Oxford quality. As a constant guide to our veteran craftsmen's "know-how," samples from every paper run get numerous laboratory tests to make sure that quality remains uniformly high. In addition, for many years now Oxford has been accustomed to making over 1,000 miles of quality paper a day. Behind this experience is never-ending research in all kinds of paper problems. So when you think of quality printing papers, think of Oxford first.

Included in Oxford's line of quality printing and label papers are: ENAMEL-COATED — Polar Superfine, Maineflex, Mainefold, White Seal, and Rumford Litho C1S; UNCOATED—Engravatone, Carfax, Aquaset Offset, Duplex Label and Oxford Super, English Finish and Antique.

OXFORD PAPER COMPANY

230 PARK AVENUE, NEW YORK 17, N. Y.

MILLS at Rumford, Maine and West Carrollton, Ohio

WESTERN SALES OFFICE: 35 East Wacker Drive, Chicago 1, Ill.

EVEN ON THE SURFACE...

STEEL

"Assorter girl" inspecting and classifying tin-coated steel plates ready to be packed and shipped to can manufacturers.

GIVES PRODUCTS GREATER SALES APPEAL!

• A perfect billboard to help sell your *products* is the flawless surface of the *steel* plate for trouble-free *cans.*

• Your label, lithographed right on the smooth, shiny steel, puts across your sales message with extra punch. And non-absorbent steel permanently retains this colorful lithographed labeling that constantly keeps your brand name before consumers to stimulate repeat sales.

When it comes to point-of-sale display, our nation-wide surveys show that *retailers vote 4-to-1 for most products packed in sturdy, attractive cans.* Shatterproof cans stack safely in sales-building shelf, counter and aisle displays ... can be exhibited effectively in windows without danger of quality loss from the harmful effects of light.

You'll get on-the-surface consumer sales appeal and superior product protection by packing your products in colorfully lithographed *steel* — the packaging that pleases as it protects.

Major Reasons for Packing Products in Cans

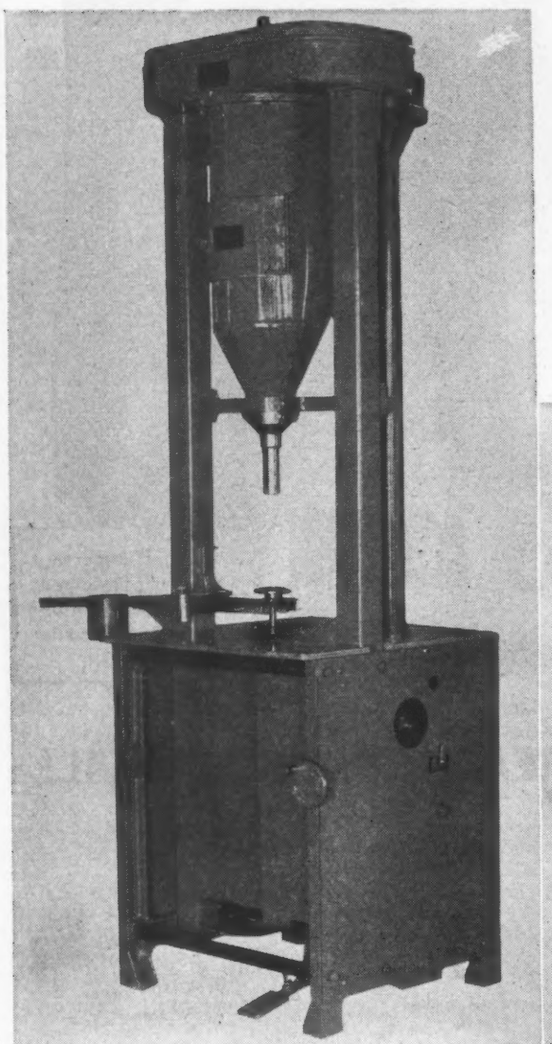
1. Cans won't break, split, crush or tear.
2. Lower filling, shipping and handling costs.
3. Can be colorfully lithographed for effective display and quick brand identification.
4. Protect products against the harmful effects of light, air and moisture.
5. ***Nationally Advertised*** — acquainting America's shoppers with the many advantages of buying merchandise in cans are more than 26,000,000 full-page, full-color ads this month in the nation's leading magazines and Sunday color supplements.

CAN MANUFACTURERS INSTITUTE, INC., NEW YORK

NO OTHER CONTAINER PROTECTS LIKE THE CAN

NEWEST THING..IN FILLING MACHINERY

HERE'S THE LATEST *IMPROVED* MODEL S&S UNIVERSAL FILLING MACHINE

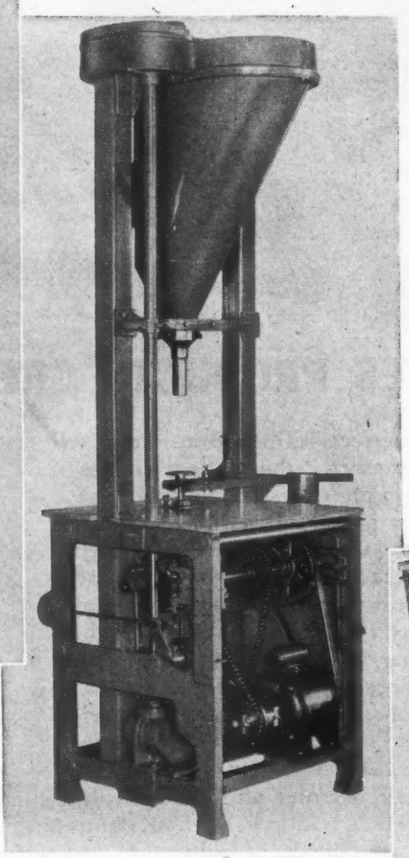


FRONT VIEW: UNIVERSAL FILLING MACHINE

Under present manufacturing conditions and with the accumulation of unfilled orders in our files, deliveries are uncertain; but — S & S machines are "worth waiting for."

Continually endeavoring to improve our machines to maintain the high standards set by Stokes and Smith Filling, Packaging and Wrapping Equipment, we are proud to present the newest member of our line.

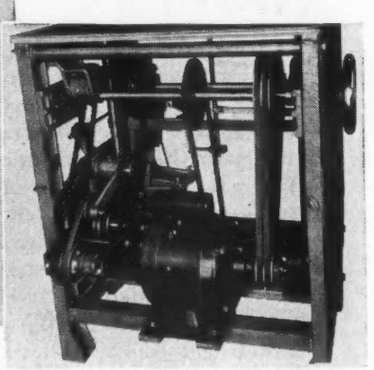
We feel sure the new, *improved* S & S Universal Filling Machine will prove to be a worthy successor of the old, reliable S & S Universal, recognized for so many years in such a great number of industries, as *the* Standard Filling Machine.



REAR VIEW: WITH GUARDS REMOVED

NOTE: SOME *IMPORTANT* FEATURES

1. Heavier construction of critical parts.
2. Spur gear drive for auger and agitator shafts.
3. Enclosed bevel gear drive for clutch and vertical shafts.
4. Twin disc clutch (5 H.P. capacity).
5. Built-in "non-stop" cam control.
6. Hopper attached to frame with gasket, permitting easy removal.
7. Grease retaining collars for auger shafts.
8. Side operating rod — adjustable.
9. Double V-belt motor drive.



CLOSE-UP VIEW: BUILT-IN "NON-STOP" CAM CONTROL

STOKES & SMITH Co

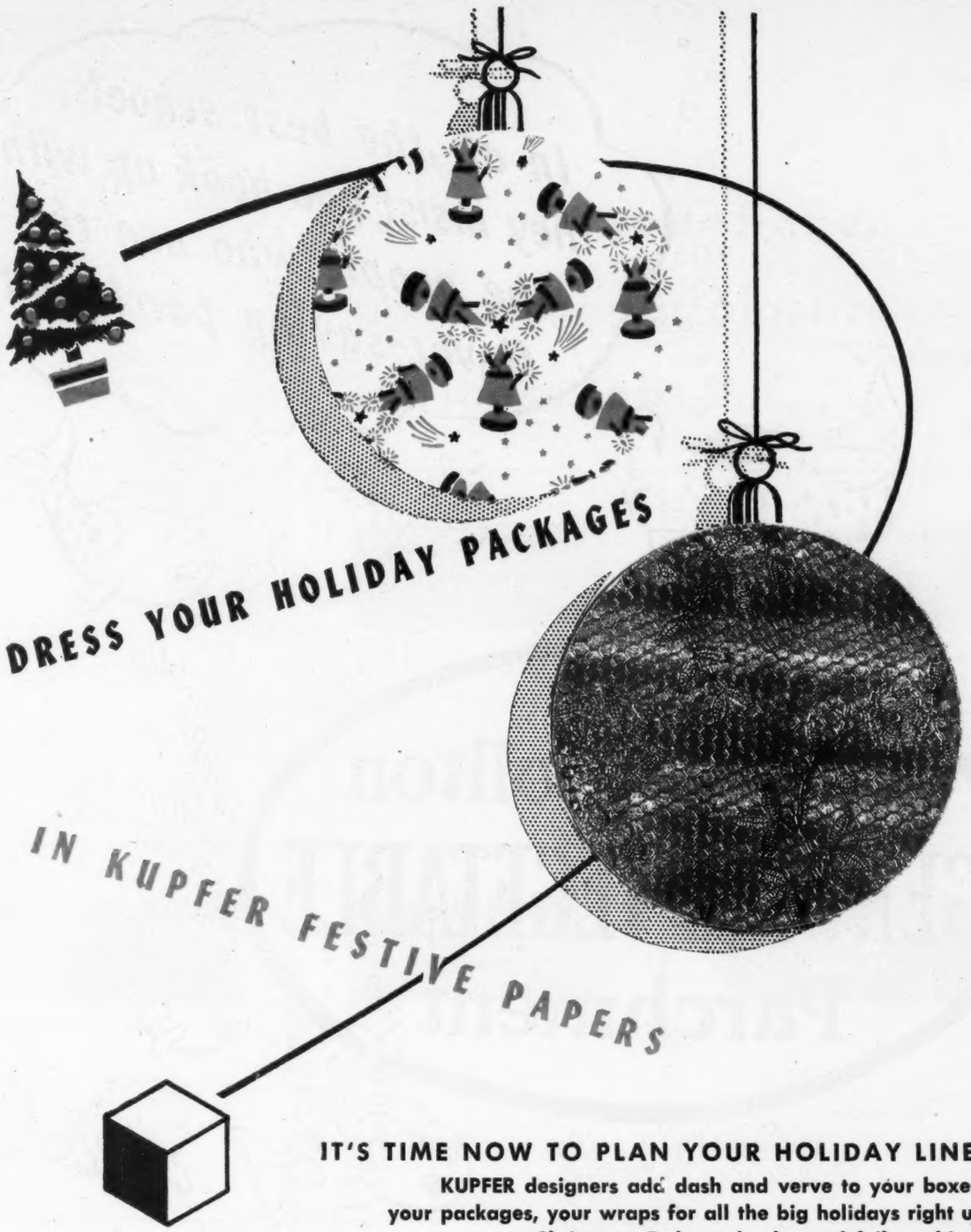
PACKAGING MACHINERY — PAPER BOX MACHINERY

FILLING · PACKAGING · WRAPPING MACHINES

FRANKFORD, PHILADELPHIA 24, U.S.A.

***Speeds to suit your needs*—15-30-60-120 per minute**

"Better machines for better packages"



DRESS YOUR HOLIDAY PACKAGES

IN KUPFER FESTIVE PAPERS

IT'S TIME NOW TO PLAN YOUR HOLIDAY LINE.

KUPFER designers add dash and verve to your boxes, your packages, your wraps for all the big holidays right up to Christmas. Embossed color and foil combinations, foil paper, lace patterns, leather papers plus variations of the light motif on all types of stock give more meaning to the familiar holiday symbols.

SEND FOR SAMPLES AND CATALOG. CHOICE OF OVER 5000 PAPERS.

COLOR SELLS

KUPFER BROS. CO. 4 ASTOR PL., NEW YORK 3, N.Y.

Manufacturers of Surface Coated Papers Since 1845

KUPFER BROS. PAPER CO.
145 West Hubbard Street
Chicago 10
Illinois

Southwest Representatives:
MODERN PACKAGINGS
Irwin-Keasler Building
Dallas 1, Texas

FRYE PAPER COMPANY
1510 Santa Fe Avenue
Los Angeles 21
California

Branches in:
BOSTON • RICHMOND
PHILADELPHIA
SEATTLE

West Carrollton GENUINE VEGETABLE Parchment

The net result of using the parchment that's odorless, insoluble, and grease-resistant — for fish, meats, butter, shortening, and other moist foods — is *fullest* flavor-protection right to the consumer. Complete printing facilities in our own plant — printing in one or more colors with special inks for food wrappers — are at your service.

WEST CARROLLTON PARCHMENT CO.

WEST CARROLLTON, OHIO

let us put your finger on the proper plastics for these jobs . . . . . .

Heat Sealing Plastics for high gloss

Aluminum foil
Paper board
Paper
Glassine
Vegetable parchment

Heat Sealing Plastics for

. . . fibre can fabrication

Heat Sealing Plastics for labels to be placed on

Aluminum foil
Acetate
Cellophane
Paper
Waxed paper
Textiles

Heat Sealing Plastics for moisture and grease resistance

. . . in all types of paper bags and packages

Heat Sealing Plastic coating for

. . . for decorative paper and paper board to achieve improved scuff resistance

Protection against moisture vapor transmission is a "must" in a multitude of businesses today.

Monsanto can help you solve this problem . . . with a series of heat sealing plastics for application on many different materials and on both porous and non-porous surfaces.

In addition these heat sealing plastic coatings impart (1) greater strength, (2) pliability, (3) resistance to grease, acids and alkalies, and (4) improved appearance.

You are invited to consult with Monsanto's packaging specialists, now applying the same technical skills to functional packaging problems as they have for years in the field of decorative packaging. Write, wire or phone: MONSANTO CHEMICAL COMPANY, Plastics Division, Springfield 2, Massachusetts.

VUE-PAK
TRANSPARENT PACKAGING MATERIAL

MONSANTO
PLASTICS
SERVING INDUSTRY . . . WHICH SERVES MANKIND

MAKE YOUR OWN HEAT-SEALED BAGS . . . *QUICKER!*

Cut your costs . . . ELECTRONICALLY . . . with this high-output, low-cost bag-maker

Now you can cut your bag expense and greatly increase your output with the new Kono-Mead Bag Builder, now coming off the assembly line daily.

This machine is electronically controlled, to produce heat-sealed bags at a cost-cutting rate of 4 thousand to 15 thousand bags per hour. And one girl can easily operate it!

Bags can be flat or square, from 1½ to 9 inches wide and from 2 to 18 inches in length. May be made of Konophane, Pliofilm, cellophane, diaphane or any of the heat-sealing coated papers. For additional strength and protection, heat-sealing can be combined with glue-sealing, thus producing a seam stronger than the material itself.

Write for full particulars.

Kono-Mead

KONO-MEAD EQUIPMENT CO. 133-23 35th Ave., Flushing, N. Y. Phone: FLushing 3-8113

Perfect!

for
PACKAGING FRUITS and VEGETABLES
fresh or frozen!

Moisture Stays In!
Moisture Stays Out!

FRESH-PAC

A TRACO PEARLON PRODUCT

Western Packer adopts Fresh-Pac for 25-lb. carton packs!!

●

Southern Packer adopts Fresh-Pac bags for frozen shrimp!!

●

Northern Packer adopts Fresh-Pac bag liner for frozen cream!!

●

Perfect for Meats—Poultry—Fish!!

● Highly Moistureproof, Retains Garden Fresh Flavors! Odorless, Tasteless, Non-Toxic, Durable, Heatseals, Flexible at very low temperatures. Washable—Consumer can re-use bag time and again!

●

Write or Wire ... Dept. B
358 WEST ONTARIO ST.
CHICAGO 10, ILLINOIS

Traver CORPORATION

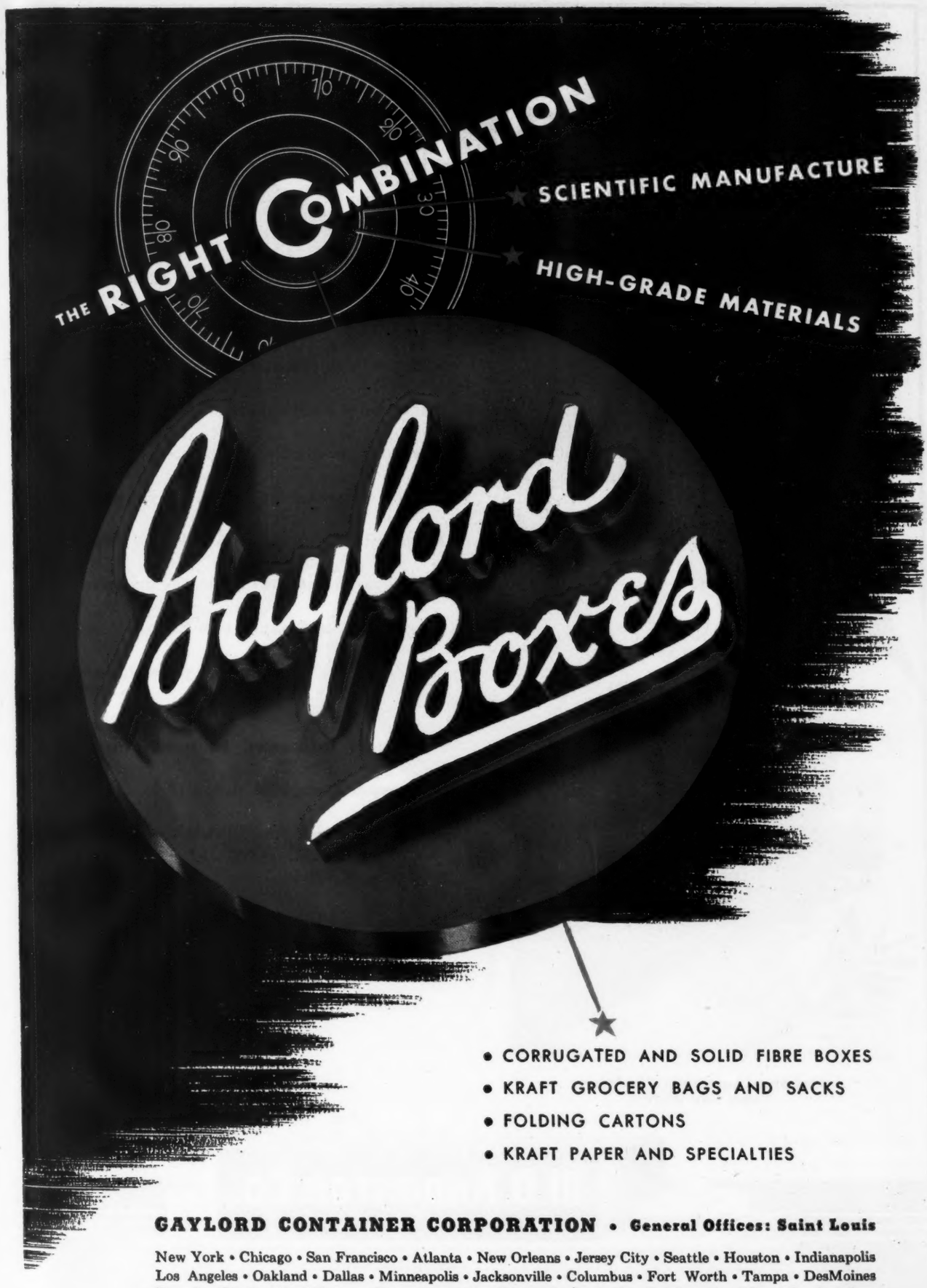
CONVERTERS—PRINTERS—CELLOPHANE—FOIL—ACETATES—GLASSINE—PLASTICS

PAPER SHORTAGE?

That makes us chortle, in a smug and selfish way. We've kept two sheets,— and use them day by day. One for the proofing and one for the job. It keeps our clients happy—If more than slightly mad. A hundred thousand impressions upon a single sheet,—it is indeed confusing, but none the less complete.

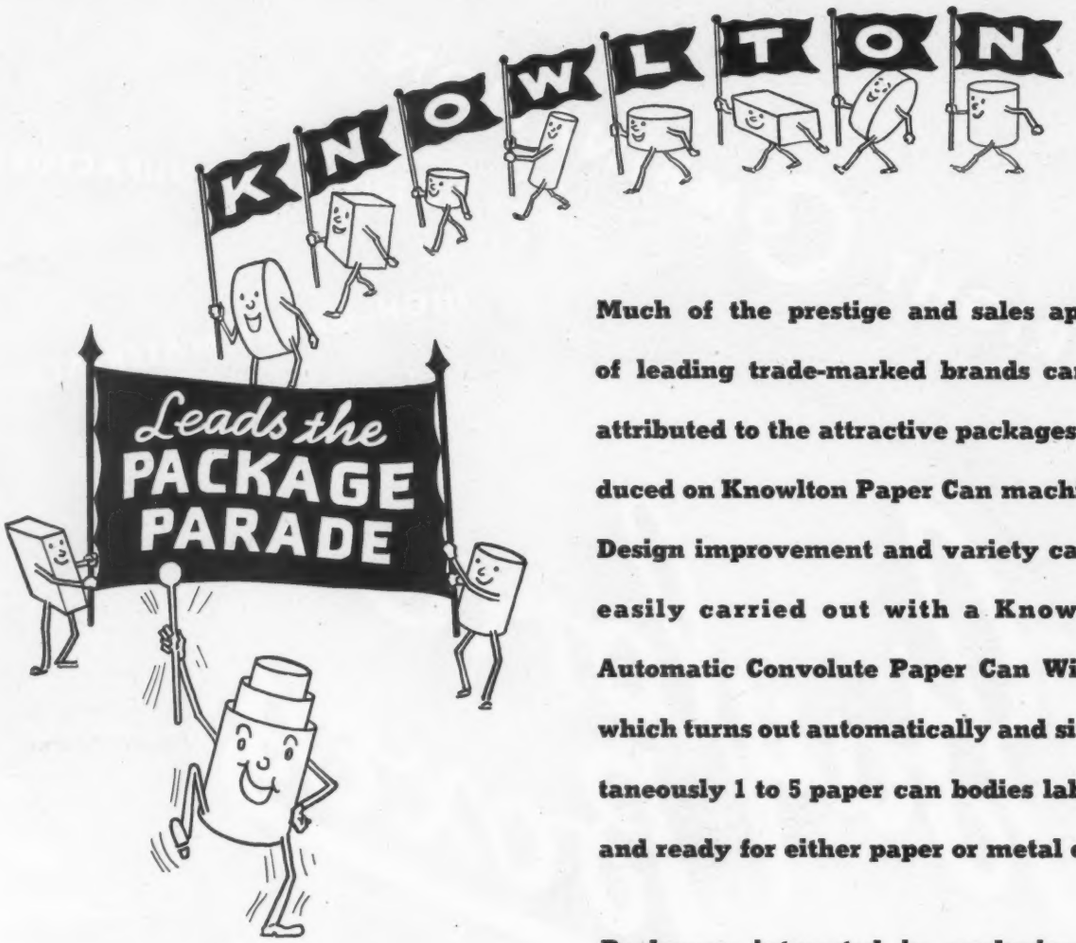
HAYNES LITHOGRAPH COMPANY, INC.

1140 East-West Highway **Silver Spring, Maryland**



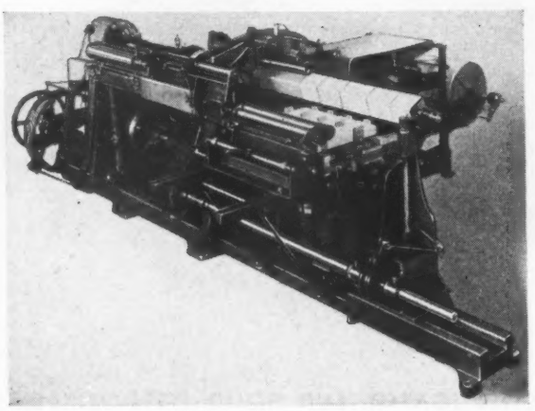
GAYLORD CONTAINER CORPORATION • **General Offices: Saint Louis**

New York • Chicago • San Francisco • Atlanta • New Orleans • Jersey City • Seattle • Houston • Indianapolis
Los Angeles • Oakland • Dallas • Minneapolis • Jacksonville • Columbus • Fort Worth • Tampa • DesMoines
Detroit • Cincinnati • Oklahoma City • Greenville • Portland • St. Louis • San Antonio • Memphis • Bogalusa
Kansas City • Milwaukee • Chattanooga • Weslaco • New Haven • Appleton • Hickory • Greensboro • Sumter

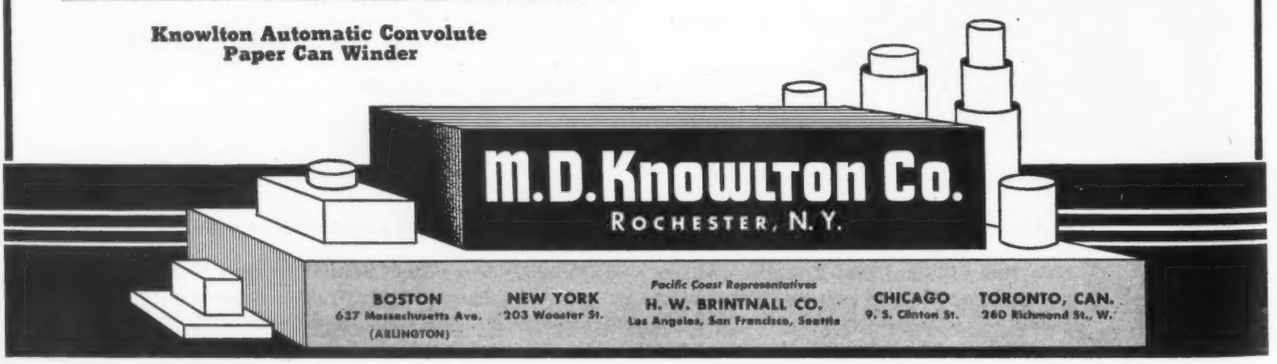


Much of the prestige and sales appeal of leading trade-marked brands can be attributed to the attractive packages produced on Knowlton Paper Can machines. Design improvement and variety can be easily carried out with a Knowlton Automatic Convolute Paper Can Winder which turns out automatically and simultaneously 1 to 5 paper can bodies labeled and ready for either paper or metal ends.

Packagers interested in producing low cost paper cans and tubes (2 to 21 plies) of unusual strength and high quality will find the Knowlton Spiral Tube Winder the top machine on the market.



Knowlton Automatic Convolute Paper Can Winder



Artist: Arthur Williams

VERMONT— where 310,000 people buy $200,000,000 in goods a year — much of it packed in paperboard. This is only one of 48 rich state markets for properly packaged products. Consult with us on your present package, for maximum customer appeal, protection and economy.

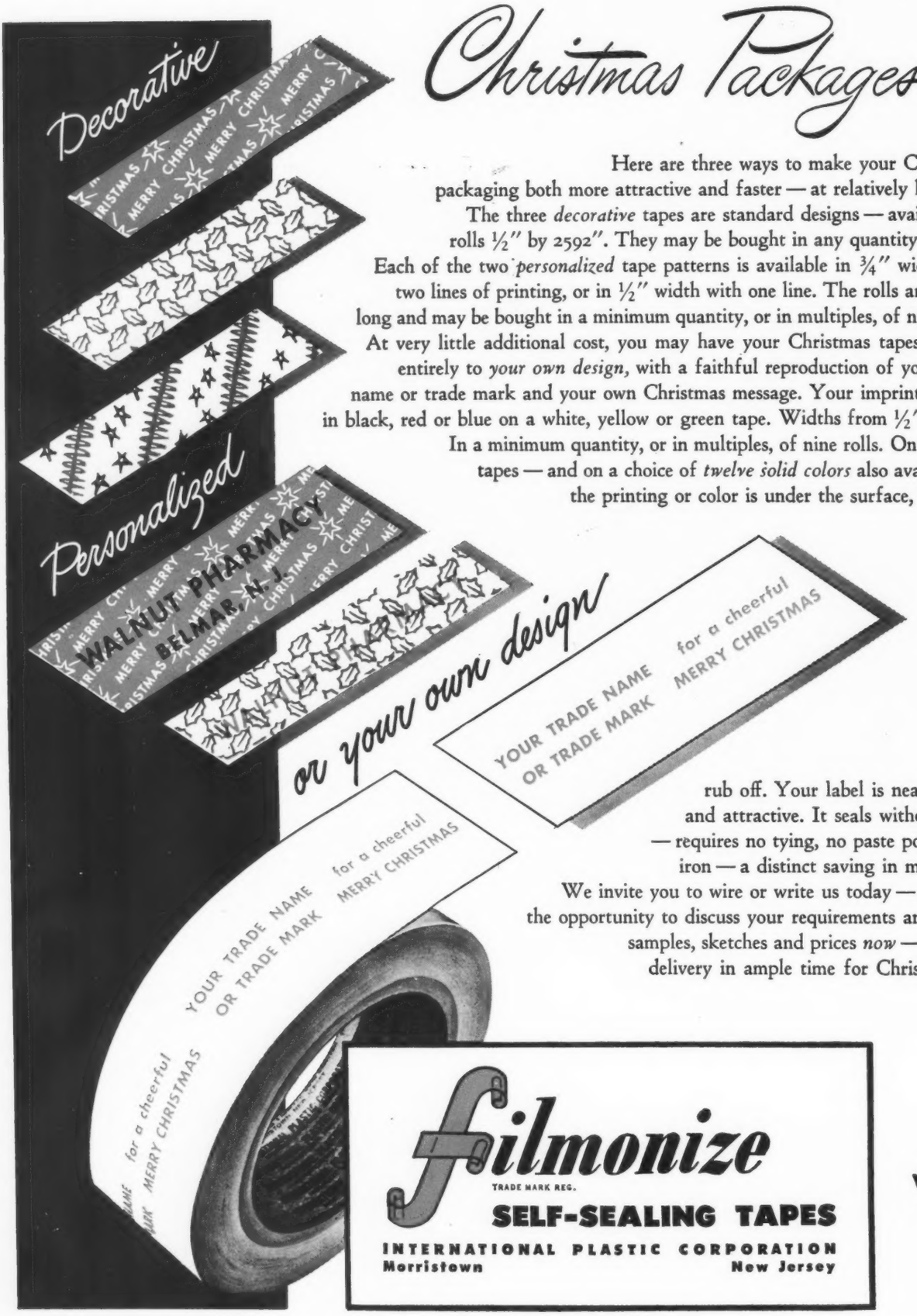
CONTAINER CORPORATION OF AMERICA

CHICAGO AND 23 OTHER CITIES

SAVE WASTE PAPER

SELF-SEALING TAPES FOR

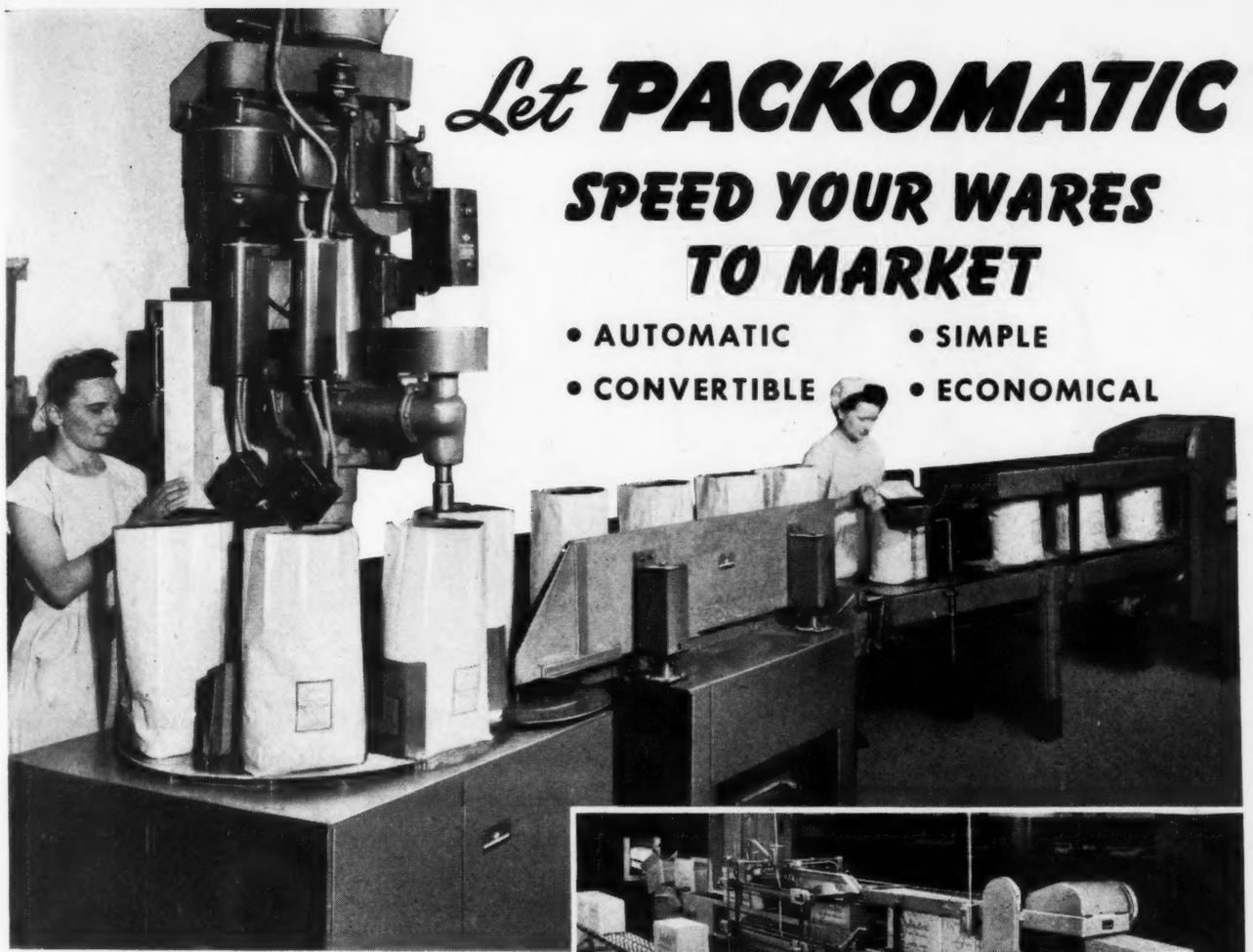
Christmas Packages



Here are three ways to make your Christmas packaging both more attractive and faster — at relatively low cost. The three *decorative* tapes are standard designs — available on rolls ½" by 2592". They may be bought in any quantity desired. Each of the two *personalized* tape patterns is available in ¾" width with two lines of printing, or in ½" width with one line. The rolls are 2592" long and may be bought in a minimum quantity, or in multiples, of nine rolls. At very little additional cost, you may have your Christmas tapes printed entirely to *your own design,* with a faithful reproduction of your trade name or trade mark and your own Christmas message. Your imprint may be in black, red or blue on a white, yellow or green tape. Widths from ½" to 18" In a minimum quantity, or in multiples, of nine rolls. On all these tapes — and on a choice of *twelve solid colors* also available — the printing or color is under the surface, does not rub off. Your label is neat, lasting and attractive. It seals without water — requires no tying, no paste pot, no hot iron — a distinct saving in man-hours. We invite you to wire or write us today — giving us the opportunity to discuss your requirements and submit samples, sketches and prices *now* — to insure delivery in ample time for Christmas use.

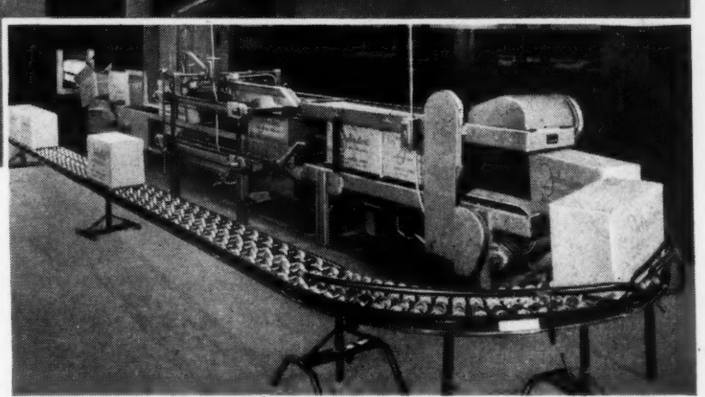
filmonize
TRADE MARK REG.
SELF-SEALING TAPES
INTERNATIONAL PLASTIC CORPORATION
Morristown New Jersey

SEALS WITHOUT WATER



Let PACKOMATIC SPEED YOUR WARES TO MARKET

- AUTOMATIC
- SIMPLE
- CONVERTIBLE
- ECONOMICAL



PICTURED above is PACKOMATIC'S new, sturdy, Turrett-Type Packer Weigher at work for Robert A. Johnston Co., Milwaukee, Wis. . . . The ideal unit for packaging soft powdered products into bags, cans, or cartons.

PACKOMATIC'S Packer-Weigher fills approximately 90% of the total net weight into the container at the first station. Container is then lowered and transferred onto gross weigher platform—where filling operation is completed. Filled container is then delivered onto the circular discharge plate—*all automatically.* PACKOMATIC'S Packer-Weigher handles containers from 6″ to 22″ high, weights from one to 25 lbs. depending upon product and container size . . . Interchangeable augers and tubes make switch from one container size or weight to another a simple matter. Many other desirable features.

PACKOMATIC'S Model "D" Paper Shipping Case Gluer & Sealer is used by JOHNSTON to help speed its internationally known products to market. Write for latest word on shipping case gluing and sealing—by PACKOMATIC.

For better packaging tomorrow, consult your Metropolitan Classified telephone directory for name of nearest PACKOMATIC office. Advice and counsel are yours with absolutely no obligation.

TYPICAL PACKOMATIC EQUIPMENT

Case Sealers • Case Imprinters • Carton Sealers • Volumetric Fillers • Net Weight Scales • Carton Making Machines • Dating (Coding Devices) • Paper Can Tube Cutters • Paper Can Tube Gluers • Paper Can Shrinkers • Paper Can Cappers • Paper Can Set-up • Conveyors

PACKOMATIC

PACKAGING MACHINERY

J.L. FERGUSON CO. JOLIET, ILL.

Chicago • New York • Boston • Philadelphia • Baltimore • Cleveland
Denver • San Francisco • Los Angeles • Seattle • Portland • Tampa • Dallas

J. L. FERGUSON CO. Dept. MP-C6
Joliet, Illinois

Please send complete data on ☐ Case Sealing ☐ Carton Filling and Sealing ☐ Package Weighing Equipment.

Company_____

Address_____

City_____ State_____

TEST BY FIRE

Some of the most highly prized Oriental Rugs are produced by Persian rug weavers. These picturesque artisans sit before their looms from dawn to dusk copying the rich colorings and complicated patterns from one or two very old rugs which are kept as models by each family.

The design of a Persian rug identifies the locality in which it was made, or the tribe that made it. The individual quality is dependent upon the ability of the original designer, the talent of the dyers, and the competence of the weavers. One test for quality is to drop a red hot charcoal on the rug. If the rug is a good one, the singed part can be brushed off without leaving a trace.

The high esteem in which Persian rugs are held is largely due to their inherent quality and craftsmanship. These same attributes have made Carr-Lowrey a name with comparable significance. With "superior quality" as our keynote, we have been giving commercial packers the very finest in glass containers for 57 years.

CARR-LOWREY GLASS CO.

Factory and Main Office: Baltimore, Md.
New York Office: 500 Fifth Avenue
Chicago Office: 1502 Merchandise Mart

It wouldn't **surprise us**

We never have seen a Warnercraft package used to adorn a lady's head, but so many re-uses have been found, that it wouldn't surprise us.

In color, design and workmanship, Warnercraft packages incite purchaser interest, building greater sales-appeal for your product.

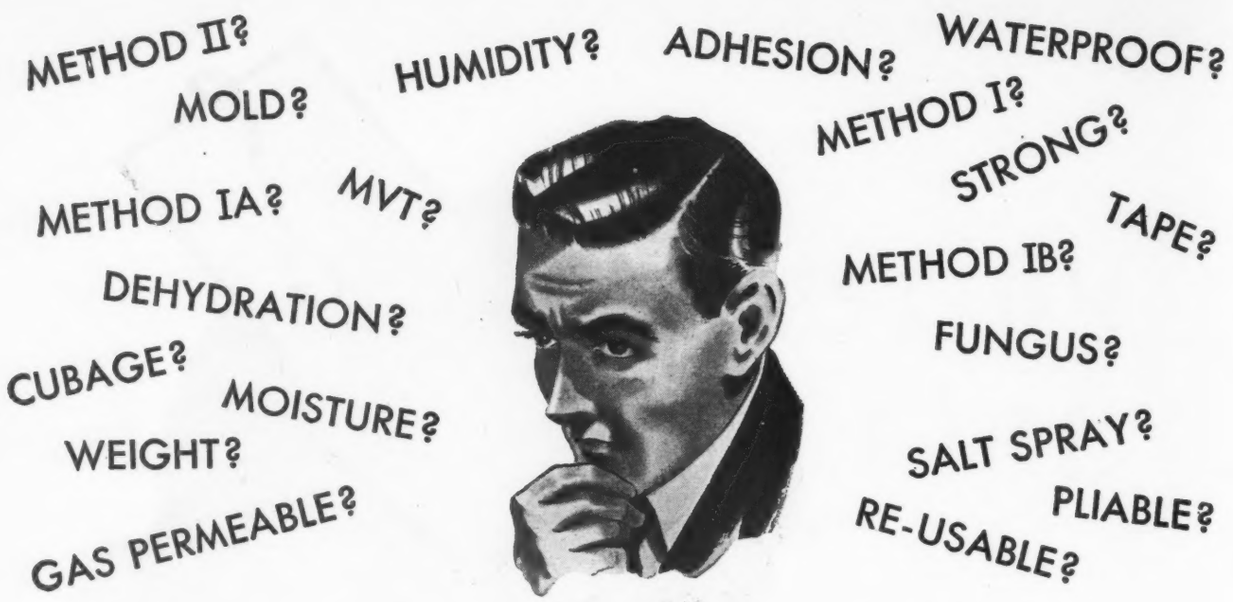
WARNERCRAFT

"THE FINEST WORD IN PACKAGING"

Makers of set-up and folding boxes of all types, transparent acetate containers, hand made specialties, counter displays and dispensers.

THE WARNER BROTHERS COMPANY

Main Office and Factory: 325 Lafayette Street, Bridgeport, Conn.
New York Sales Office: 200 Madison Avenue, New York, N. Y.



PUZZLED?

Get the FACTS from men who know the answers!

It is no cause for wonder that buyers of packaging materials are sometimes puzzled, because there are so many factors that influence a choice.

Kind of product, type of container, shipping and storage conditions, climate at destination and enroute—these and many more considerations affect the condition of the product as received by the buyer.

Here at Aquastop headquarters are men who are qualified by training and experience to give you the answers to your problems of product protection.

AQUASTOP is, in many ways, a service in tangible form for economical and rapid application. Its makers are ever alert to change and trend, with an expert staff constantly probing into new packaging situations to determine what's happening and why, and what to expect—a continuous inquiry into everything of consequence in and to the business of profitable protection of packaged products.

Regardless of the type of product you make or sell—from machinery to fresh foods—or whether you ship your products by air, water or ground transportation there is an application of AQUASTOP to meet your needs.

Find out about this versatile packaging material before making a final decision on the material you'll use.

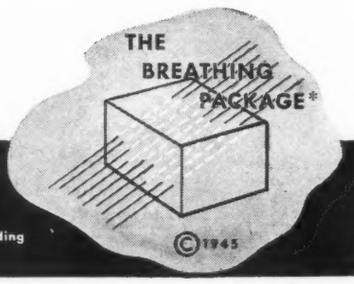
This booth at the Packaging Exposition was the source of information that solved packaging problems for many manufacturers in diversified fields of industry. It was but a sample of the constructive assistance we are prepared to render.

★ ★ ★

PROTECTIVE COATINGS CORPORATION

Manufacturers and Consultants

681 Main Street • Belleville 9, N. J.



AQUASTOP *Pat. Pending

does your product have

SOCIAL CHARM?

Almost three thousand manufacturers of paper products and stationery are going to spend, annually, $800,000 additionally in sales promoting advertising for the next five years. They are also going to spend a lot of time and thought in the development of sales promoting packages.* Of the 136 million containers used by these plants, seventy-five percent are set-up boxes—and more and more products are raising this percentage.

Most of the products in these allied industries are "take-home products", products that depend to a large extent on their see-ability. and sell-ability. Your product, packaged in set-up boxes, can have greater social charm —greater take-home appeal.

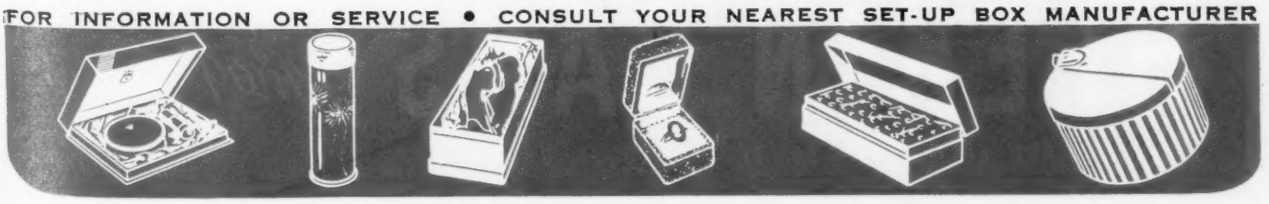
*For a host of other facts and figures write or call your nearest paper box manufacturer for survey No. (50) "Paper Products, Stationery and Allied Lines".

NATIONAL PAPER BOX MANUFACTURERS Association

AND COOPERATING SUPPLIERS

Liberty Trust Building • Philadelphia 7, Penn.

FOR INFORMATION OR SERVICE • CONSULT YOUR NEAREST SET-UP BOX MANUFACTURER



LITHOGRAPHED METAL CANS for FROZEN FOODS

MODERN COLORFUL with SALES APPEAL

HEEKIN CANS With Lithographed Colors

THE HEEKIN CAN CO. CINCINNATI 2, OHIO

Make Tough "Bodyguards" Tougher!

Strengthen Wax Films by Blending S/V Petrosenes A & B with Paraffin Waxes . . .

●For wax-coated papers used in many types of packaging, where folding and creasing are involved, you can get better results by blending S/V Petrosenes A & B with regular paraffin waxes.

These microcrystalline waxes make tough wax films even tougher. They increase flexibility and help maintain an improved moisture-vapor barrier.

This increased flexibility gives better folding and creasing qualities without rupture or cracking of the wax film. Let your Socony-Vacuum Representative give you complete details on correct blending and application of these waxes.

Process Products
SOCONY-VACUUM

INVESTIGATE
SOCONY-VACUUM PROCESS PRODUCTS
Research and Service

What's New in Petroleum for PACKAGING!

FROZEN FOODS
S/V Microcrystalline Waxes
Impart flexible moisture-vapor proof coatings.

★

DEHYDRATED FOODS
S/V Microcrystalline Waxes
When used as coatings, keep contents dry.

★

CONTAINER LININGS
S/V Microcrystalline Waxes
Protect interiors of barrels, drums, tank cars.

★

BEER CANS
S/V Petrosenes
Give flexible inert linings.

★

HEAT-SEALING
Special Waxes
Produce tough, tenacious seals on paper.

★

EXPLOSIVES
S/V Waxes, Petrolatums
Waterproof and seal dynamite sticks.

★

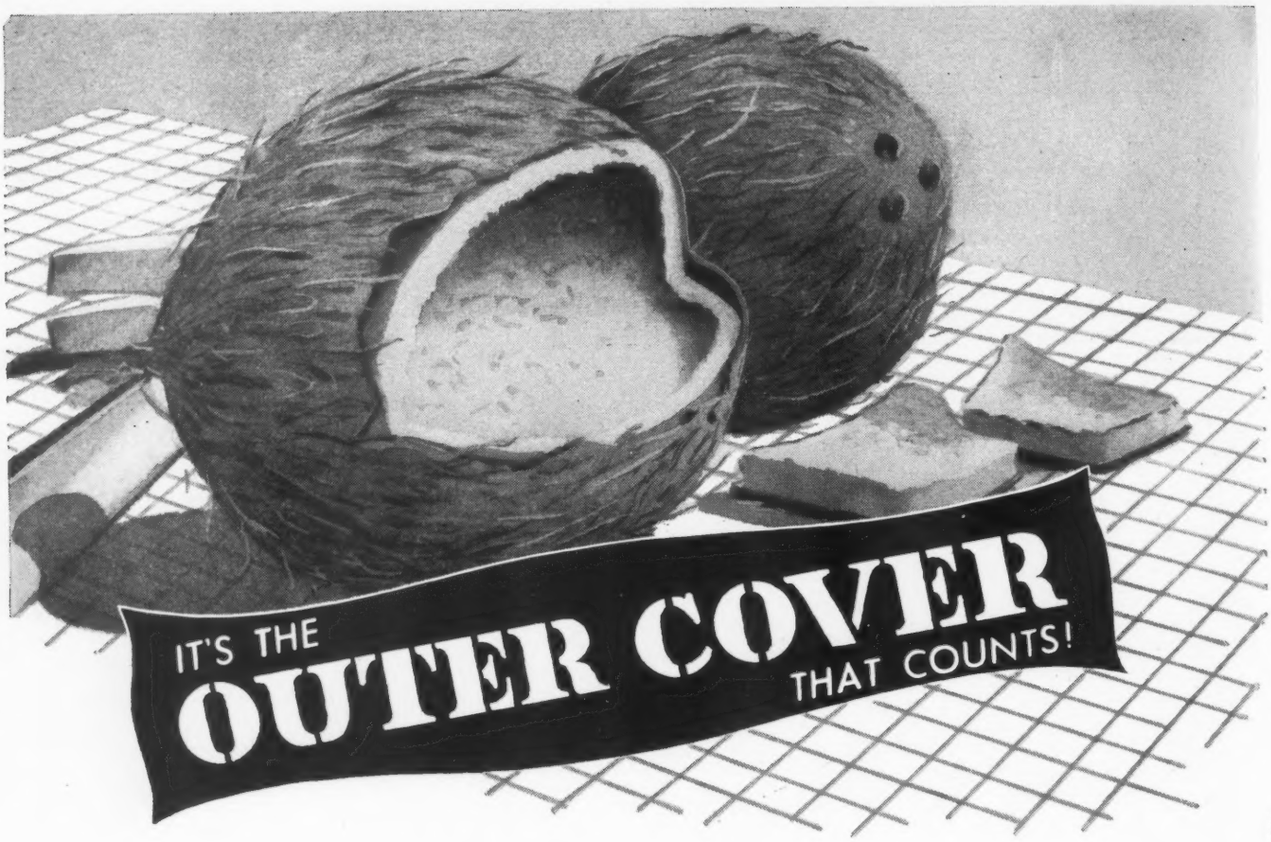
HYDROFLUORIC ACID
S/V Cerese Waxes
Add strength to waxes used for containers.

★

RUST PREVENTIVES
S/V Sova Kotes
Keep metals from rusting in storage.

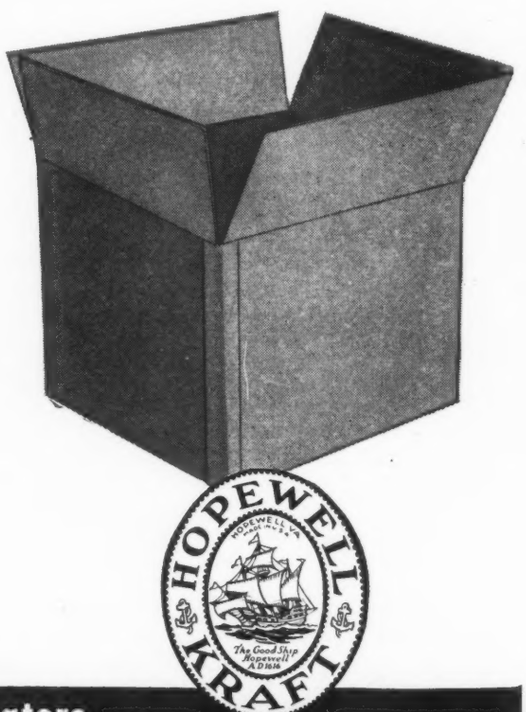
SOCONY-VACUUM OIL CO., INC.
26 Broadway, New York 4, N. Y.,
and Affiliates:
Magnolia Petroleum Company,
General Petroleum Corporation.

Tune in "Information Please"
Monday Evenings, 9:30 E.D.T.—NBC



It has taken Nature thousands of years of trial and error to provide the coconut with the perfect "shipping container" for the precious cargo it contains. But the "trial and error" method has no place in your choice of a container for your goods. The container must be right, no matter how exacting your requirements may be.

Shipping container and carton manufacturers know that Hummel-Ross are Kraft Board specialists. So they bring us their problems. Frequently we can give them an immediate solution. If not, they know that we have the imagination and the "know-how" to originate and create specialized Kraft products for their needs.



Originators • Creators

HUMMEL-ROSS FIBRE CORPORATION

Hopewell, Virginia, U. S. A.

HOMEMAKERS VOTE 2 to 1 FOR COFFEE PACKED IN GLASS!

Among the housewives of America the preferred package for coffee is glass.

The emphatic 2 to 1 vote in favor of glass for coffee packaging was shown in a recent nation-wide survey made by a noted public opinion analyst.*

Here are some of the reasons women give for preferring coffee in glass:

PROTECTION

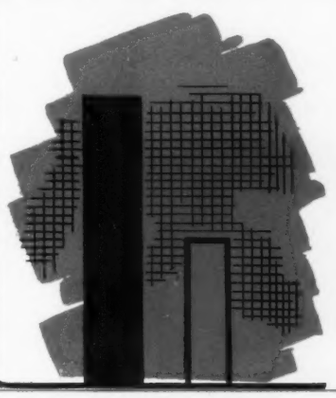
Vacuum-packing delivers coffee roaster-fresh. Cap guards peak flavor, aroma—*reseals* between uses.

ATTRACTIVENESS

Glass packages can be easily arranged in eye-catching displays...add spic and span sparkle to pantry shelves.

VISIBILITY

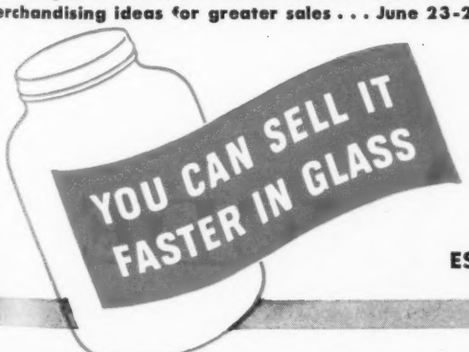
Glass shows off the rich brown color . . . the size of the grind. Housewives can see when to buy more.



PREFERENCE

Glass is way out ahead as the favorite coffee container. Its popularity is increasing for its advantages are basic!

Will see you at the 1946 NARGUS Convention, with new merchandising ideas for greater sales . . . June 23-26.



A Duraglas coffee container has important Duraglas technique advantages—light weight, compactness, strength. It's no wonder so many retailers say: "Glass-packed products require less selling time."

* Name supplied upon request

ESPECIALLY IN Duraglas CONTAINERS

OWENS-ILLINOIS GLASS COMPANY · TOLEDO 1, OHIO · *Branches in Principal Cities*

★

You'll never know what you've been missing

Until you try

American Anode latices and mixes

for coating and impregnating paper...

Many paper chemists and engineers haven't had the chance to learn of the remarkable progress made recently in the field of coating and impregnating paper with latices and water mixes. They haven't had a chance to discover that the use of American Anode latices and mixes in a surprisingly large number of cases will result in a *better* product at a *lower* cost.

That's why we hope you will tell us what you are doing and how you are doing it. Give us the opportunity to work with you on standard products as well as new developments. We think that we can help you in a way that you'll like.

You'll like the inherent safety features of water systems, too; no dangerous, explosive solvents; no cumbersome and expensive recovery systems.

Latices and mixes of natural and synthetic rubbers, GEON, HYCAR, neoprene, and Saran are available from our bulk storage. For more information about the *modern* way to coat and impregnate paper, please write Department AC-6, American Anode, Inc., 60 Cherry Street, Akron, Ohio.

The American Anode laboratory in Akron is equipped with the latest and most modern paper testing equipment, and is staffed with people who know how to use it.

AMERICAN ANODE
INCORPORATED

NATURAL AND SYNTHETIC RUBBER LATICES, WATER CEMENTS AND SUSPENSIONS

If you are after the baby gift market, let the customers look at what you have to offer. That's why Englishtown Cutlery, Ltd. chooses visible Shaw-Randall packaging to put its Teacher-taught baby cutlery in full view.

There's display value aplenty and sound engineering in this Englishtown package. The printed sleeve gives added decoration and protects the acetate from scratching.

Let Shaw-Randall's creative package experts make the customers look at *your* product.

SHAW-RANDALL
COMPANY

A DIVISION OF **THE SHAW PAPER BOX COMPANY** PAWTUCKET • R. I.

SALES REPRESENTATIVES

FRED MANN & CO., 545 FIFTH AVENUE, NEW YORK ---------- H. B. W. SNELLING, BOSTON

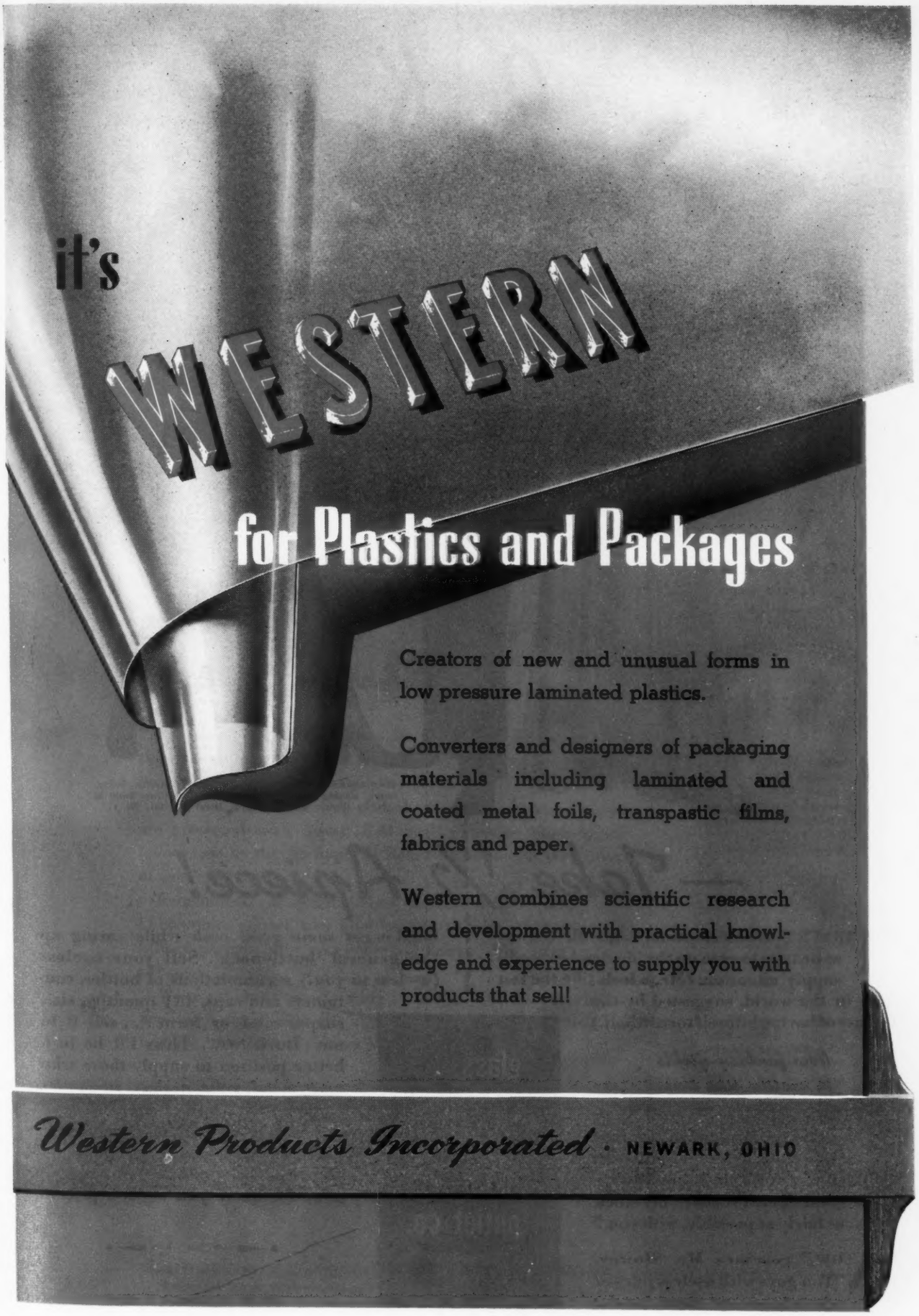
"Package by Inland"

★ Proper strength factors have been incorporated in this container so that its contents arrive in shelf display condition. The weight of the package, the number of units, the most desirable units of sale all fit into low cost handling, manufacturing, warehousing and distributing. ★ There is a *"Package by Inland"* for every requirement.

INLAND
CONTAINER CORPORATION
Corrugated Fibre Boxes

INLAND BOXES

INDIANAPOLIS, INDIANA • EVANSVILLE, INDIANA • MIDDLETOWN, OHIO • CINCINNATI, OHIO
DAYTON, OHIO • CHICAGO, ILLINOIS • MILWAUKEE, WISCONSIN • DETROIT, MICHIGAN


it's
WESTERN
for Plastics and Packages
Creators of new and unusual forms in low pressure laminated plastics.
Converters and designers of packaging materials including laminated and coated metal foils, transpastic films, fabrics and paper.
Western combines scientific research and development with practical knowledge and experience to supply you with products that sell!
Western Products Incorporated · NEWARK, OHIO

O. K.

Illustration: On John C. Slowey's left is Marion Colby, lovely singing star now appearing with Milton Berle at Nicky Blair's Carnival Club, Hotel Capitol, N. Y.

—Take 1/2 Apiece!

"THAT'S THE *best* solution," sighs Mr. Slowey as he tries to ease up the 'demand-exceeds-supply' situation. (Mr. S feels like the last man in the world, suggested by the fantasy of having himself torn in half.)

Now fantasy yields to reality like this:

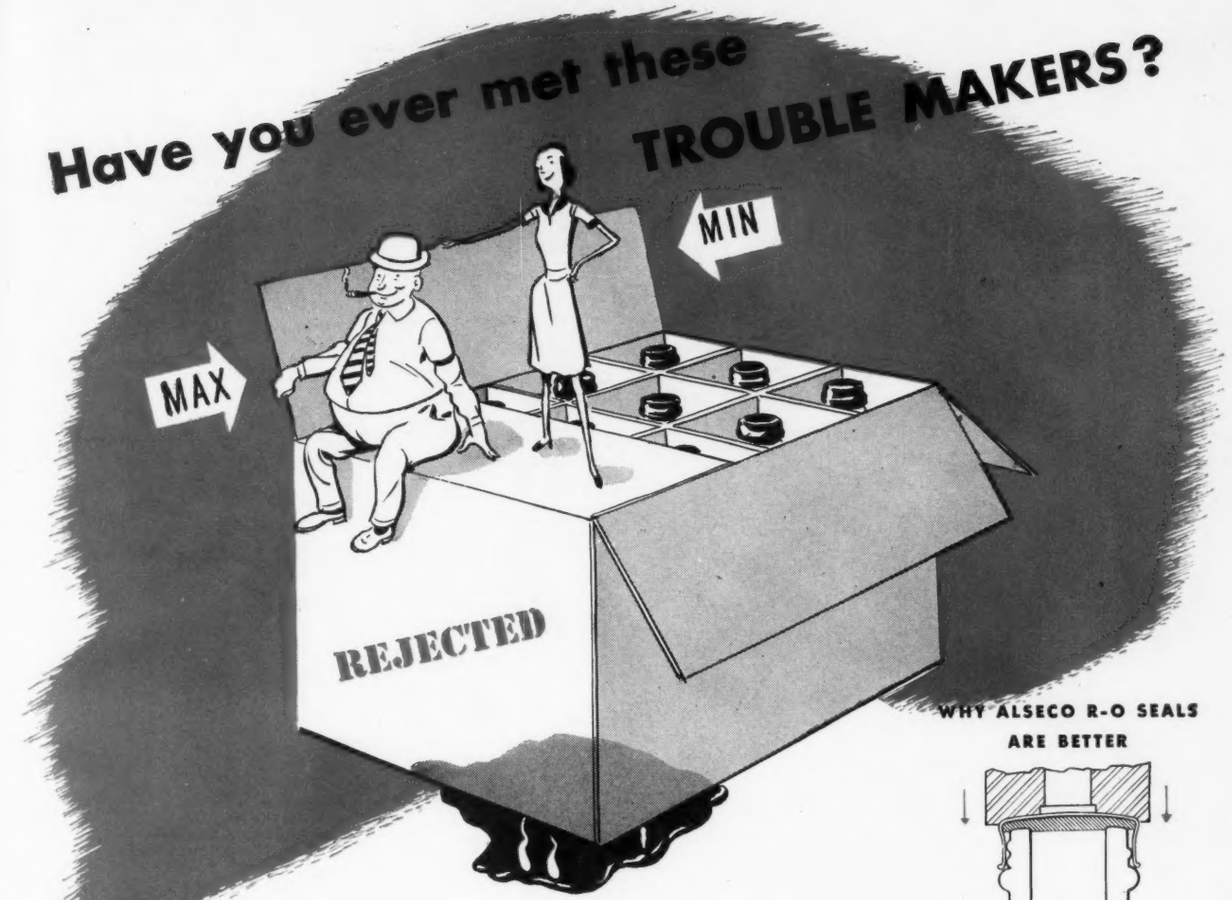
SAYS MR. SLOWEY: "A word to all you folks whose orders for containers and caps are on my desk: I'll do the wisest thing, since I owe you a great debt. I'll share my stock fairly, as fairly as possible, with you."

"NOW," resumes Mr. Slowey, "You guys with useless piles of containers and caps: Lend a hand — *get some good cash* while easing up the general 'bottleneck'. Sell your useless (useless to *you!*) accumulations of bottles, containers and caps, ANY quantity, size, shape, color or form . . . sell it to me. Do it NOW. Then I'll be in a better position to supply *those who most need your useless stockpiles* right now! It doesn't matter whether they're drug, food, chemical, cosmetic or what-have-you containers and caps. Be a pal and contact me now. I'll quote you a good price!"

glass
container
&
cap
outlet co.
876 Broadway
New York 3, N. Y.

phone: ALgonquin 4-6066

Have you ever met these TROUBLE MAKERS?



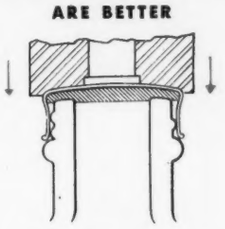
"Max" caps on "Min" bottles, or vice versa, are little better than no caps at all. And rejects resulting from leakers and breathers are too costly for you to tolerate poorly fitting closures.

But you'll never meet up with these troubles if your products are protected with Alseco R-O Seals. They're automatically *tailor-made* as they're applied, *Rolled-On* to match the threads of each container.

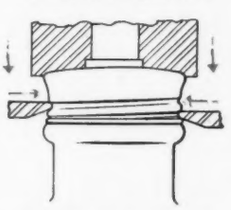
Economical, rust-proof Alseco Aluminum R-O's hold plenty of customer appeal, too. They're easy to take off. Attractively lithographed in your own color and design, they dress up your package.

Write us about your sealing problems. Our 32 years of experience in providing the right answers is ready to help you find the best kind of closure for your products.

WHY ALSECO R-O SEALS ARE BETTER



1. Plain-skirted Alseco Seal is seated squarely on container. Under stationary top pressure, container lip is embedded in cap liner evenly all around, effecting the seal.



2. While the seal is thus held under pressure, threads are Rolled-On to conform exactly with threads on container. Each seal is tailor-made, fits perfectly, seals tighter.

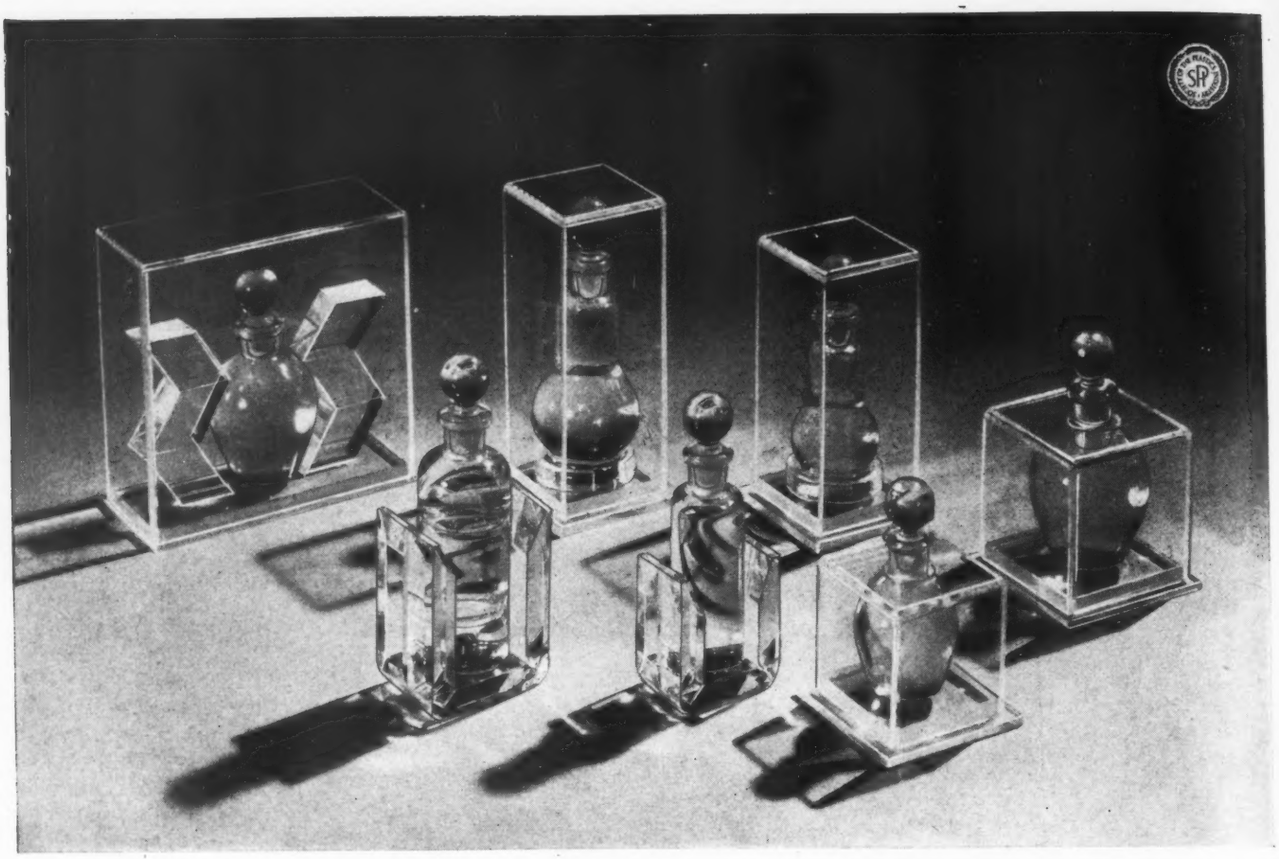
ALSECO

TAILOR MADE OF ALCOA ALUMINUM

SEALS AND SEALING MACHINES

ALUMINUM SEAL COMPANY — NEW KENSINGTON, PENNSYLVANIA

SUBSIDIARY OF ALUMINUM COMPANY OF AMERICA — SALES OFFICES IN LEADING CITIES



Seven super-salesmen, these BLUE RIVER All-In-One Containers, designed exclusively for the Richford Corp., manufacturers of fine glass bottles, are a brilliant addition to the large collection of distinctive containers created for prominent manufacturers in many varying lines

So the bottle-maker said to the package-maker . . .

"Why wait for each other...and keep customers waiting for us both? Let's get together, and show 'em REAL SERVICE!"

So they did just that! Today, working brain to brain and hand to hand, the Blue River Plastics Mfg. Corp., creators of the All-In-One plexiglass package, and the Richford Corp., artists in glass, give you a sparkling combination to dress up your product for BOTH quick counter sales...and long admired home use.

Effective immediately, the Richford Corp. becomes *sole* distributor for the famous dual-purpose containers, created by F. J. Nussbaum and manufactured by Blue River.

. . .

IMMEDIATE DELIVERY ON BOTTLES AND PACKAGES

No waiting for bottles...or containers. The complete package... bottle and container... is delivered right on the dot! Note: All lovely, lasting Nussbaum-designed containers, like those shown here, are "Exclusives".. individually designed for leading perfumers and cosmetic houses.

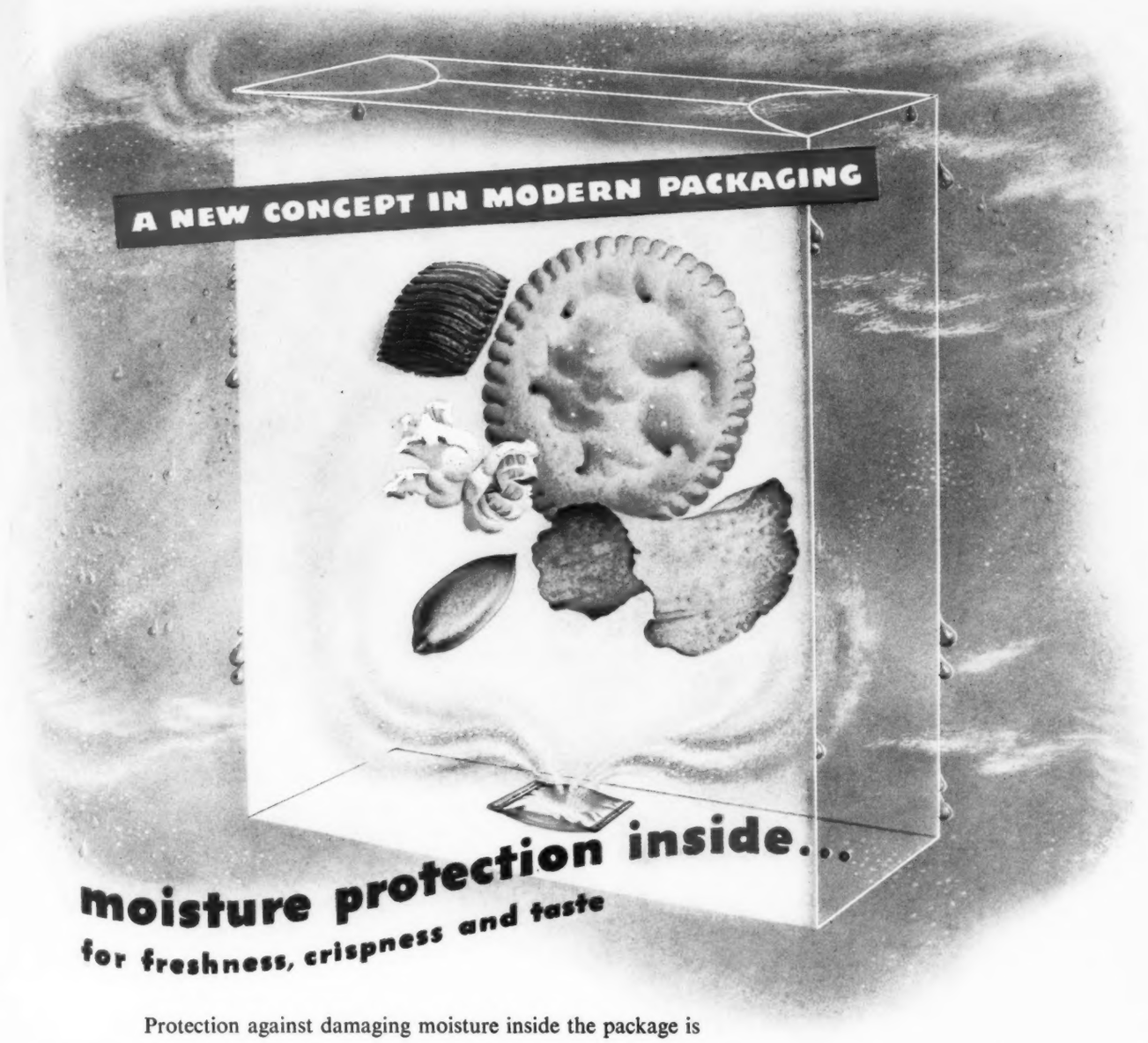
NEW IDEAS EXCLUSIVELY FOR YOU

Looking for bottles plus containers? Or just containers in crystal clear plexiglass or a gorgeous array of jewel colors? We can shorten your search!

You'll welcome our young, fresh slant on your packaging problem. How about having a Richford representative suggest distinctive bottle and container designs — and explain how your Nussbaum-designed "Exclusive" can go into "prompt delivery" production? Of course, no obligation to you.

BLUE RIVER PLASTICS
MANUFACTURING CORPORATION
Fabricators and Designers of Plastic Originals
329 CANAL STREET, NEW YORK 13, N. Y. WAlker 5-2679

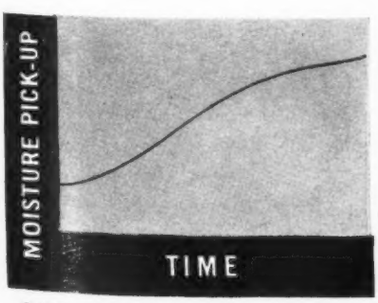
RICHFORD CORPORATION
221 FOURTH AVENUE, NEW YORK 3, N.Y. • ALgonquin 4-6311 • Cable: "RICHFORD, N.Y."



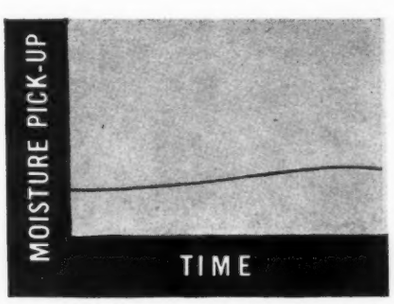
Protection against damaging moisture inside the package is now economically practical with Desiccite,* the highly efficient, low-cost drying agent produced by one of the world's largest manufacturers of desiccants. Any commodity from foods to metal products can be moisture-protected at such low cost that manufacturers with packaging problems are turning to Desiccite for "inside packaging protection." Filtrol* engineers will gladly consult with you on your packaging problems. Write today for full information.

Dry Pack with DESICCITE

a Filtrol Product



ORDINARY PACKAGING

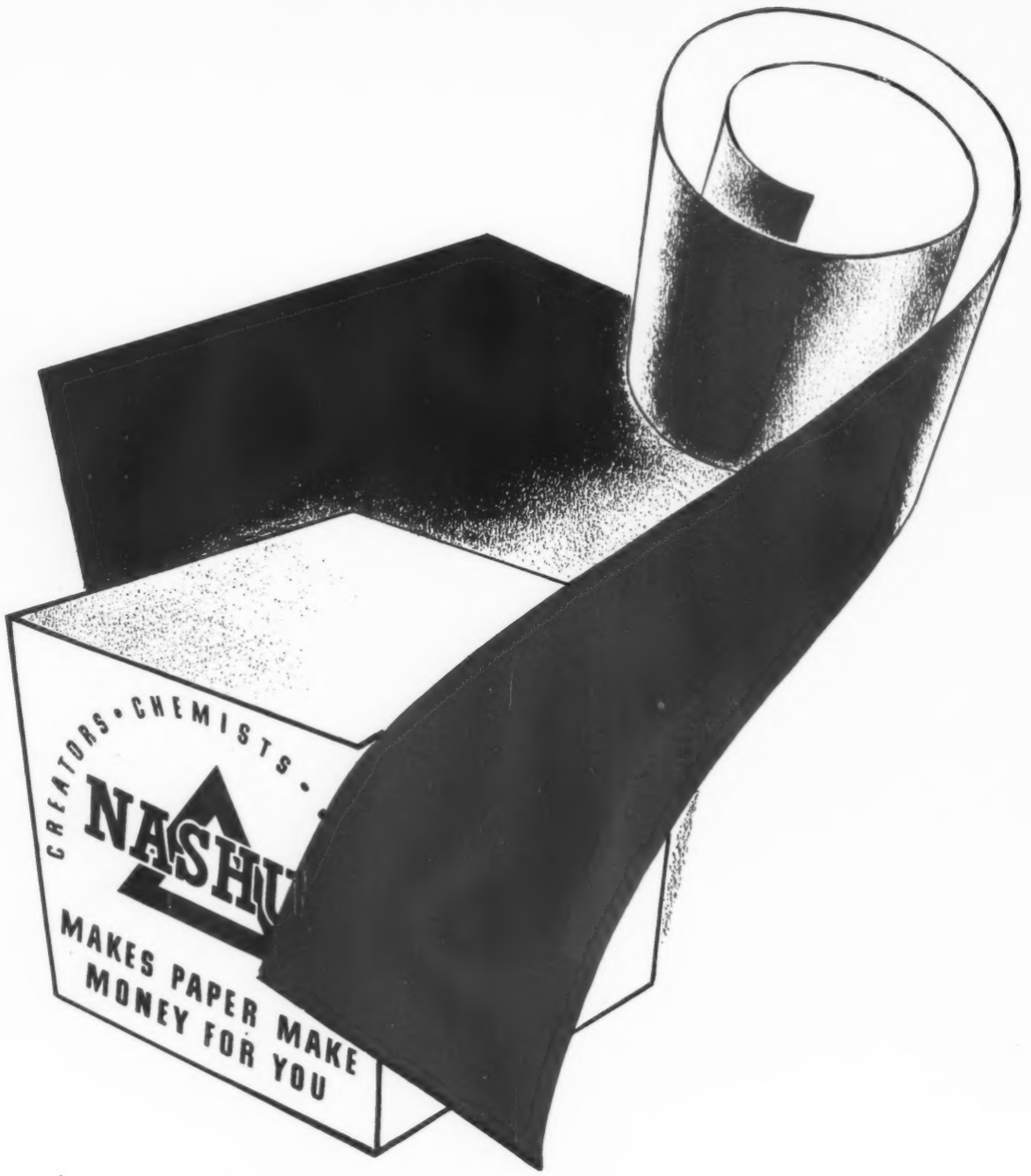


DESICCITE PACKAGING

FILTROL CORPORATION

General Offices: 634 S. Spring Street, Los Angeles 14, Calif.
Plants: Vernon, California, and Jackson, Mississippi

* *Filtrol and Desiccite Reg. U. S. Pat. Off.*



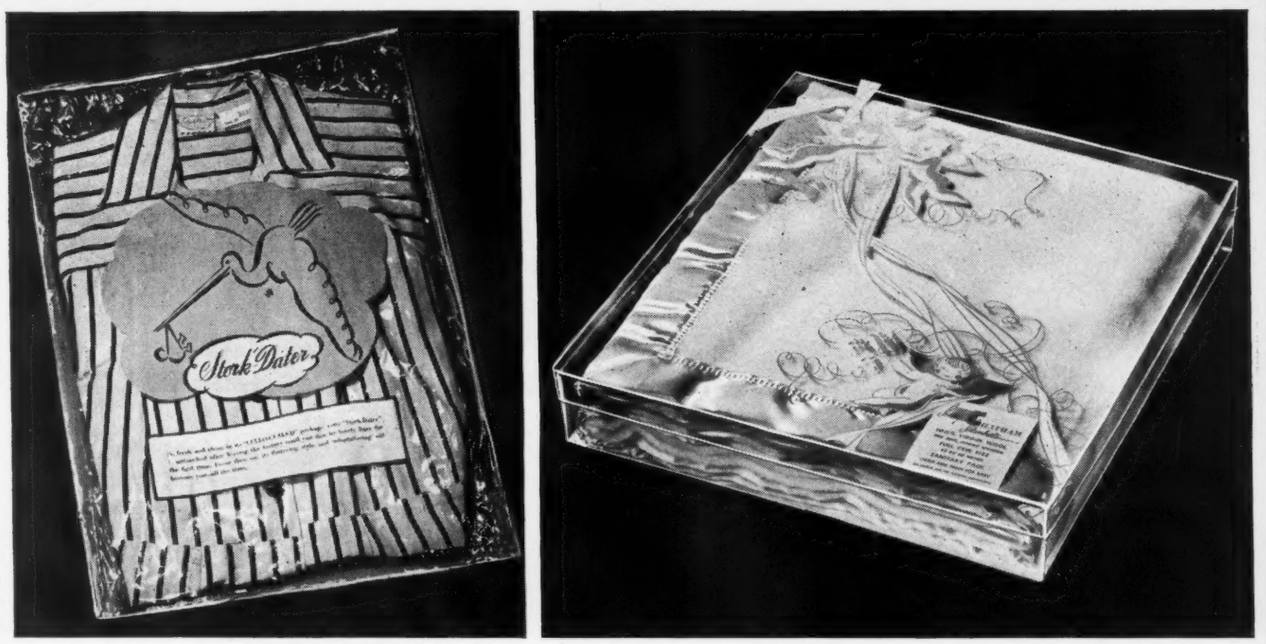
NASHUA MAKES THE STUFF THAT *Makes* THE BOX

Nashua doesn't make boxes, but many boxes and other packages are "made" by Nashua packaging materials. We are headquarters for papers for packaging. We convert papers and transparent film into materials used for packaging. Our processes include waxing, coating, gumming, printing, embossing and laminating.

Let us show you how our facilities, resources and experience can help you with your packaging.

CREATORS CHEMISTS CRAFTSMEN
NASHUA
MAKES PAPER MAKE MONEY FOR YOU

NASHUA GUMMED AND COATED PAPER COMPANY, NASHUA, N. H.



1—Stork-Dater, a maternity dress packaged in printed, heat-sealed cellophane pouch. Dress is counter item sold from open samples. Sizes are visible through package. 2—Chatham Mills introduces baby blankets in acetate box. Printed design is purely decorative. Identification is on label in box.

TEXTILES...a field day for new packaging

Just as the turn of the century marked the passing of the cracker barrel in packaging history, the next decade may be remembered for the packaging of hundreds of textile items that have never been packaged before.

Outmoded methods of handling all kinds of textile items are giving way to convenient new pre-packs, factory sealed and guaranteed to go straight from manufacturer through retail outlets to the consumer without being opened. They include domestics—sheets, pillow cases, towels and blankets; lingerie—slips, girdles, bandeaux, brassieres; men's shirts, shorts, pajamas, work clothes, slacks; hosiery; infants' garments; household items—table cloths, napkins, curtains, closet accessories, ironing board covers, cleaning cloths, etc.; women's ready-to-wear—aprons, night gowns, robes, blouses, yes, even dresses.

This is happening, first, because sales resistance to sample selling is being broken down. Shoppers are learning to purchase from samples displayed on counters, yet getting a fresh prepack from reserve stock behind the counter to take home. Careful marking of prepacks for size, style and color assures a correct purchase, factory inspected and identified with the maker's brand. The prepack can be purchased with the confidence of getting clean, fresh, undamaged merchandise that has had no chance to become shop worn. Store operators and sales people are learning to appreciate the convenience of handling the consumer prepack and the ease of stock taking with such packaging.

In the second place, package suppliers and equipment manufacturers are cognizant of the demand for mechanical methods to facilitate the packaging of textile items. It is a simple matter to fill a carton of breakfast food or a can of peas. This technique is well perfected. Packaging textile products automatically presents an entirely different mechanical approach.

Textile manufacturers are ready for better, faster

3

4

3—Several firms offer high-priced blankets in substantial re-use boxes of rigid transparent acetate, sometimes costing two or three dollars apiece. In foreground a transparent box suggested for wash cloths.
4—Thousands of foot socks are sold in cellophane envelopes. Informative data shows through back.

and more efficient packaging methods. Many of them were looking around at Atlantic City in April hoping to find the answers to their needs. Sheet manufacturers, for example, are looking for methods to fold sheets mechanically. In most instances, this is still a hand operation, although there are folding machines for pillow cases. A large manufacturer of infants' garments says there is a fortune waiting for the company that can develop a machine that will load baby pants into cartons without the necessity of hand folding.

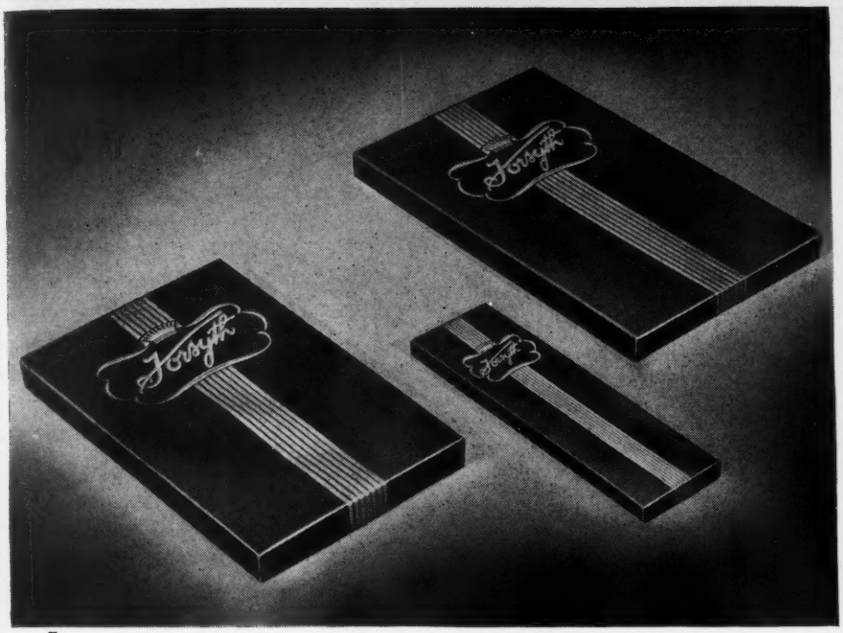
So far no machinery manufacturer has found a way to put soft textile items into envelopes, cartons or boxes mechanically. Most of such goods must be first folded by hand, then backed with cardboard and loaded by hand—a time-consuming operation.

Wrapping equipment, such as has been used for cellophane wrapping of candies and small cakes, has recently been adapted for the wrapping of some textile items which can be fed to the wrapping machine on cards or in trays. Further development to accommodate a wider variety of sizes will probably be on this principle. Cannon and Shannon mills have developed their outstanding automatically wrapped hosiery packages as an adaptation of this principle. Other small items which are now hand loaded into cellophane or glassine envelopes may also be wrapped in this manner in the future. One of the difficulties, however, for companies who package a variety of products is that of getting a machine sufficiently flexible in adjustment to be changed-over from handling large to small items.

Machinery manufacturers are extremely interested in these developments and say that it is No. 1 on the list as soon as they can get their rush of postwar orders out of the way. When these developments get underway, the packaging field will undoubtedly see many innovations in packaging practice throughout the textile field. Mechanical development will probably be on the principle of horizontal feed, with folding units attached to conveyors carrying the product to the wrapping or loading machine.

Manufacturers of textiles are not waiting for all these mechanical developments, however, but are introducing new packaging ideas as fast as the packaging material supply situation will permit, or resuming activities which were interrupted by the war period.

Transparent packaging will play a very large part in these activities, since visibility is a requisite for sales appeal in the case of many textile products. This transparent packaging is taking many forms—wraps, envelopes, rigid transparent boxes. Window cartons will also have a dominant place. However, there are many purposes for other types of packaging. The folding carton will have many uses because it is economical, especially when price competition returns. This container is advantageous for presentation of brand and product name as well as providing a large area for informative data and directions for use and care of the product. The set-up box has a good future in shelf boxes as well as a consumer unit for sheets, pillowcases, table linens, curtains and many items of men's and



5

6

5—John Forsyth Co., haberdashery, Kitchener, Ont., uses a variety of boxes for shirts, pajamas and neckties.
6—Transparent packages for shirts were adopted by some before the war. Center, a transparent wrap for six man's handkerchiefs—a wrap that can be produced automatically. Visible packaging for suspenders.

women's wear. Glassine wraps and envelopes as well as other papers will find a place in instances where fully transparent materials add too much to the cost.

Domestics

New interest in sheet packaging was aroused by the recent introduction of new boxes for the luxury muslin and percale sheets of the Lady Pepperell line. These new boxes, designed on a folding-box principle and developed in delicate decorative colors, contain two sheets. Pillow cases are packed six to the box. All boxes are uniform in size for convenient stacking. A new feature of the box is a back that can be opened so that the sheets may be slipped out on a cardboard tray for customer inspection. The tray can then be re-inserted and the flap replaced without damage to the box. The back panel is devoted entirely to informative data for the consumer: what the sheets are made of, how they are made, what service they will give, how they should be cared for, how to pick the right size sheets, signs of a good sheet and how many to have for each bed.

Essentially, the Pepperell package is a modern consumer unit. Other manufacturers are watching carefully its sales progress. Sheets and pillow cases have been packaged in shelf boxes for a number of years—usually a half dozen sheets to the box and a dozen pillow cases. Many manufacturers are still skeptical about a consumer package. In the first place, they say, it is difficult to have a box that will suit the requirements of all widths and lengths of sheets. This entails a difficult folding and marking problem. Also, there is no definite country-wide popular unit of sale. In the metropolitan New York area, for instance, the average sale may be four to six sheets. In other areas it may be a single sheet or a pair. It is believed that the larger purchases are made in big cities because of the better delivery facilities of metropolitan department stores, whereas in smaller communities many purchases are made at cash-and-carry outlets and the average shopper doesn't want to carry home more than one or two sheets at a time.

Certain sheet manufacturers say, too, that what the store buyers want is what they get. Many store buyers, accustomed to the traditional "white sales" during normal times want hundreds—thousands—of sheets unpackaged at that time for aisle display—the drama of a big white showing. Sheets sell so fast during these periods that there is no chance of the stock getting dirty, they say. However, during the balance of the year, these same stores want sheets in shelf boxes for protection from dirt and dust. Several companies, however, who now put their sheets in boxes of half dozens, say they may cellophane wrap them in pairs of two before putting them in the box. They still aren't too sure this is wise either, because they say customers still want to feel the merchandise, which is not possible if the cellophane packs are sealed. There is also some objection to cellophane because of its tendency in some grades to become brittle and crack in dry atmospheres. Textile mills are further troubled about methods of

7

***7**—Fruit of the Loom distributes more than 126 textile items, 30% of them packaged. More will be put in packages in the future. Recent re-design program brings all packages into pleasing family with a blue color scheme.*

8

folding different sized sheets so that they can all be handled on the same wrapping equipment.

All are interested in simplifying and standardizing the dimensions of the sheet boxes that they now use for shelf and display purposes and some are studying methods of folding to put all sizes in the same sized box. They also want stronger boxes than were permitted during the war because of the paper shortage. Both manufacturers and retailers are satisfied with the decrease in the percentages of mark-downs that have resulted largely, they say, due to packaging.

In the packaging of towels, the Cannon gift sets have been outstanding for more than a decade. Cannon's new towel gift packages for 1946 will be announced sometime during the next few months. Whether this field will go undisputed in the future is not known. Successful merchandising ideas are often copied and imitators may follow in the wake of this success.

***8**—Tipped-on sample illustrates redesigned trademark that appears on every Fruit of the Loom package. **9**—Kiddee-Pantee package carries seal but deviates from family design to present pink-and-blue baby theme. **10**—For one group of Fruit of the Loom household products the design is adapted for the use of navy blue panels and reverse printing of product name and selling copy to give long-range visibility*

9

10

There is also study and interest in the packaging of staple lines of towels, particularly in good shelf units that will be aids to the retailer. Several houses have also packaged assortments of wash cloths in cellophane, a trend which will gain further favor.

Blankets, unpackaged, are one of the bulkiest and most easily soiled items that a department store carries. High-quality blankets have been boxed individually for a number of years, but new interest is being shown in boxes to feature blankets as gift merchandise. Recently a large New York department store sent a direct mail piece to its charge customers offering light-weight summer wool blankets "individually packed in a distinctive new flower-patterned box." The box was supplied by the manufacturer to feature the item for display and to make it more attractive for gift selling.

Firms which make high-priced blankets are offering them in rigid transparent boxes—some of these boxes costing from two to three dollars apiece, but they can be used by the purchaser as a re-use storage box.

First in the industry, however, to offer a transparent box as the package for a popular priced blanket is Chatham Mills, which is putting on the market this month Baby Chatham blankets in two sizes, for basinet and crib, to be sold in infants' wear departments and specialty shops. The set-up box has a dainty cherubic design in pink, blue and white printed directly on the transparent acetate cover—the three colors in which the blankets are obtainable. There is no trade mark on the cover. Identification is provided by a label affixed to the blanket that shows through the plastic. The box is made of acetate sheet except for the bottom, which is paperboard for greater strength. The box without trade mark, offers re-use appeal to the user.

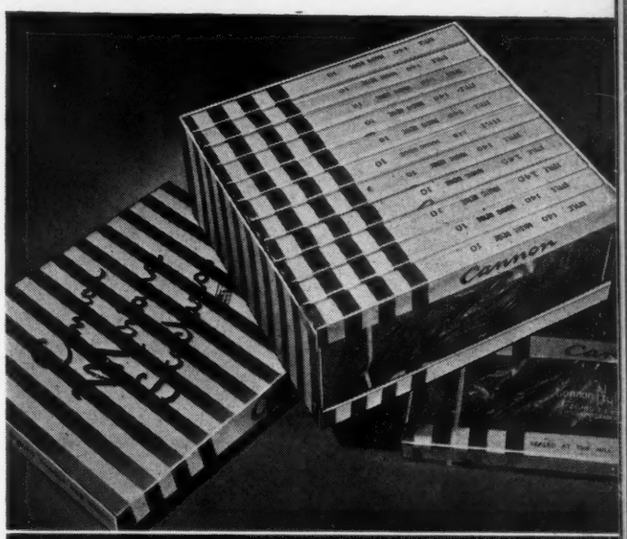
Hosiery

Despite continued nylon shortages, the hosiery industry is perhaps more package conscious than any other textile field. This is due to the controversy that began before the war over the pre-sealed package versus the conventional boxes for quarter or half-dozen pairs. Cannon Mills is packaging its nylons in the pre-sealed,

11—*Another group of household products in the Fruit of the Loom family is distinguished by navy and white diagonal stripes for easy recognition by sales forces.* (*Page 97*)

11

12



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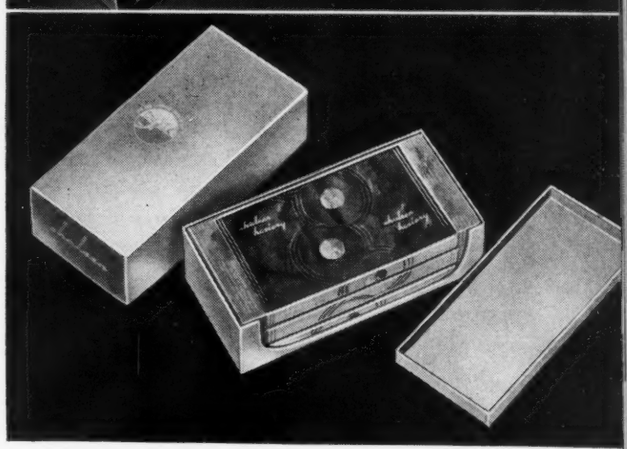
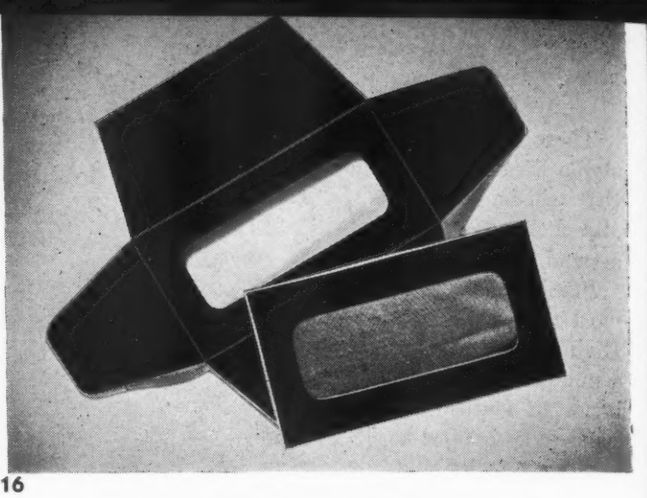


12 *and* 13—*Pre-sealed, purse-size packages for Cannon and Shannon nylons consist of cardboard tray automatically overwrapped with printed cellophane and placed in two types of specially designed stock boxes.*

14

14—*Sulloway box cover has a die-cut keyhole in the box lid. Printed cellophane wrapper for each pair of stockings duplicates box cover design. Thus stockings are visible through both the cellophane and the box cover*

15



16

15—*Suggested transparent gift box for stockings to hold several pairs. Suppliers feel added cost will be well worth while from a selling standpoint in a competitive market.* **16**—*Purse-size wrap of lacquered paper with transparent window. Stockings are placed on window, four sides folded over and secured with tape.*

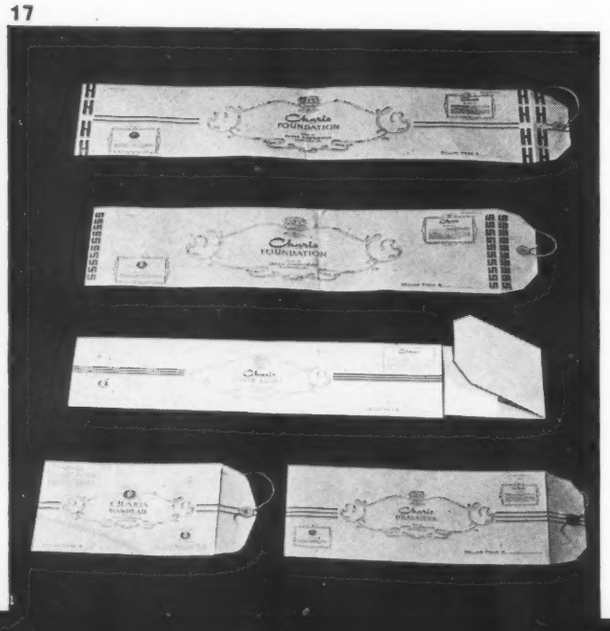
purse-size transparent package which was introduced before the war. This package is also being used by Shannon Mills, which also adopted it before the war. Due to the usually ringless perfection of nylon, it is the belief of these companies that the shopper will raise no question of inspection of the stockings after making a selection from counter samples.

This package consists of a paperboard tray in which the stockings are placed and overwrapped automatically with cellophane in the same manner as you might wrap candies or cakes. It is designed to eliminate the sharp cutting edges that might harm the stockings. All paperboard edges are folded inward. All cellophane edges are on the outside of the tray so that they are not next to the nylon fabric. The manufacturer assumes responsibility for the quality of the product by his own statement on the box. The sealed package is also his assurance that his product is being sold without handling that causes damage and endangers prestige.

Both Cannon and Shannon mills have redesigned their postwar package and stock boxes in which they are packed for greater color and eye appeal. The Cannon package has four magenta pink candy stripes printed on the left of the cellophane wrap, which is otherwise left transparent except for brand name so that the stockings are clearly visible. The candy-striped stock box holding 12 pair of the stockings is cut out in front to allow full view of the package. Trays are stacked upright and face-forward in the stock box, with a tab on the bottom to hold the first tray—the last to be sold—in place. Thus all boxes on the shelf appear to be filled, even though all but the last may have been sold.

17—*Charis Corp., whose business is direct selling, delivers foundation garments in kraft envelopes like these.*

17



The color scheme for Shannon's Shaleen stocking package is pale blue and white. The box holds three of the individual tray packages laid flat, showing the cellophane-wrapped stockings in the top tray. A die-cut front panel facilitates removal of the trays.

A survey made by Container Corp. of America among salespeople trained in selling hosiery from samples showed that 72% found customers easily educated to accept packaged hosiery accurately labeled for size, color and length by sample and quick to appreciate the advantages of protection given by branded hosiery.

These pre-sealed packages, however, present a new problem of handling in stock space, since the boxes vary slightly from the conventional 7- by 10- in. boxes. However, many merchandisers anticipate many changes in the appearance of stocking departments in the next few years, not only in adapting space to accommodate various size boxes, but to improve the appearance by re-styling. Attractive packages will be a big help in this re-styling, they feel. Some retailers even envision the elimination of the stock boxes entirely and use of plastic trays holding hosiery packages like cards in a file.

There are many hosiery mills, however, who still object to the pre-sealed package and prefer the loose, easily-examined hosiery wrap. Julius Kayser & Co., one of the largest and with the oldest brand designation

(*Page 98*)

in the industry, recently redesigned its 7-1 by 0-in. hosiery box, holding three pairs of stockings, individually tissued and folded in a notion bag bearing company name. The three are held together with a printed band and arranged so that they can be ticketed without removal from the box.

An interesting re-designed package of the conventional type has just been completed by Sulloway. The box carries three pairs of nylons, each package in a loose cellophane wrap inside. The background of the design is black with white printing. The cover of the box is die-cut with an identifying keyhole effect. Inside the cover design is duplicated on each of the loose cellophane wraps so that the hosiery is visible through cellophane and die-cutting of the cover.

The trend toward pre-sealed hosiery, however, is indicated by comments from a supplier who specializes in hosiery packaging supplies, the packaging division of E. W. Twitchell, Inc. This company has a new purse-size wrap made of lacquered paper, with a die-cut cellulose acetate window. The wraps are delivered flat and the hosiery is placed on top of the acetate window and the four sides folded over the back of the hosiery and taped. This is said to cut down time of packaging in comparison with loading an envelope.

Just prior to the war this company developed a box for an individual pair of stockings that had a transparent acetate lid—expensive but offered for eye appeal as a gift package. 18

This same company is also working on a paperboard folding box laminated overall with cellulose acetate. This will also be used for packaging an individual pair of stockings. The lamination gives the paperboard a brilliant protective finish and a perfect window.

An item that has gained wide acceptance both in hosiery and notion departments during the last 10 years is the foot sock. One company, makers of "Footlets," has sold thousands of pairs of these in attractively printed heat-sealed cellophane envelopes. The face of the envelope is all-over printed except for the figure of a woman's foot which allows the product to show through. Four different colored packages are used —one for each style of "Footlet." The card used as backing is inserted so that it shows through the transparent back of the envelope and is printed with all necessary informative data about the package. 19

Men's wear

Men's and boys' shirts, pajamas, underwear, etc., are usually boxed in stock boxes for shelf use. In recent years most companies have realized the importance of attractive boxes with well-identified design, not only to protect the merchandise but with added eye appeal.

However, just before the war there was quite a bit of interest in packaging such items individually in cellophane or other transparent materials. The shortage of materials, of course, curtailed a great deal of this activity, but indications are that it is being renewed.

Some companies packaged all their white shirts in cellophane before the war. Other shirt makers say they would never package shirts this way, particularly makers of higher priced shirts, because shoppers want to examine what they are buying. These manufacturers would rather put their shirts in stock boxes, from which they are removed on arrival at the store and placed in counter cases or bins. Some shirt makers, however, might change their minds if they could see the piles of markdowns that often clutter up the behind-the-scenes stock rooms in department stores because of this practice. It is not improbable that shoppers will learn to buy shirts from loose counter samples and receive a fresh package from stock when they make their purchase the same as women buy pre-sealed hosiery.

(Page 99)

Fruit of the Loom

One of the outstanding over-all packaging programs in the textile field is the re-design program just completed by Fruit of the Loom. This company distributes more than 126 items including men's and women's clothing, domestics, house- (*Continued on page 182*)

18 *and* **19**—*New Lady Pepperell boxes contain two sheet Back of box may be opened and sheets slipped out c cardboard tray for consumer inspection. Printing back panel gives complete informative data about sheet*

1—Foil-wrapped and heat-sealed suppository wedges are compartmented in neat, hinged setup box containing direction folder. In the foreground, a close-up of wedges both wrapped and unwrapped.

Molded and wrapped *in one operation*

*by Charles Weckesser**

When the Organic Research Department of Eaton Laboratories, Inc., perfected a superior combination of a suppository base and spermicide for their new product "Lorophyn" suppositories, it was determined that existing methods and machines for producing wrapped suppositories were inadequate. The task of improving upon them was assigned to the Development Engineering Department.

Conferences were first held with veteran production men in the plant of Eaton Laboratories at Norwich, N. Y. As a result, it was decided to attempt to meet the following requirements:

1. The process through which the wrapped suppositories were to be produced must be speedy, accurate and automatic in operation.
2. The wrapped suppository must be of an acceptable form and superior in appearance.
3. The suppository must be wrapped in a greaseproof, hermetically sealed wrapper which could be easily removed. This latter requirement was imposed by the fact that the suppository base is a wax-like solid at ordinary temperatures but becomes an oily liquid at about 97 deg. F.

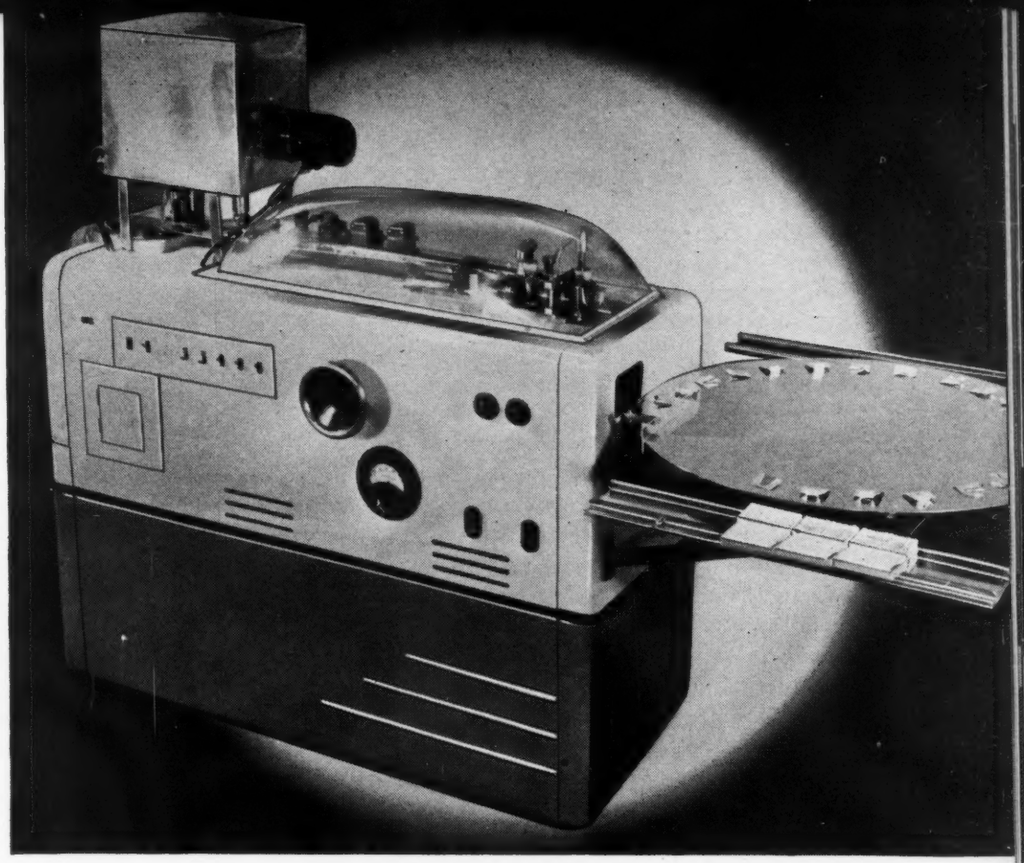
In the course of the work on this project, it was discovered that the suppositories could be simultaneously molded and wrapped. This discovery was utilized and the above requirements were met as follows:

1. *Development of wrapper:* This included a study of a large number of wrapping materials; determination that a heat-sealable foil was most suitable; decision as to the form of suppository which would be best adapted to heat-sealing, and working up a method of applying the foil.
2. *Development of machine:* This involved an analysis of the individual operations made in molding and wrapping the suppository and in planning the proper sequence for a workable machine model.
3. *Design, layout and detail of the necessary equipment:* Wartime shortages hampered production of the machine, and it had to be designed and produced with materials readily available.
4. *Building first commercial unit:* The construction of the machine was done in the plant's machine shop.

The wrapper

The material used as a wrapper for Lorophyn suppositories is an aluminum foil with a heat-sealable Vinylite coating on its inner surface. This foil can, with no apparent weakening, be placed around a mold

* Development Engineer, Eaton Laboratories, Inc., Norwich, N. Y.



2—This is the machine, designed and built by Eaton Laboratories, which molds suppositories and packages them simultaneously. Foil from roll is lead over mandrel, formed into envelope, filled with liquid mass, sealed, cut off and ejected onto turntable at right, from which wedges are loaded into set-up boxes. Speed is 70 per minute. Note Plexiglas cover over filling-forming mechanism for sterility and visibility.

of the desired suppository shape so that its edges meet at the sides and top of the mold and it conforms to the shape of the mold. This shape is retained by the foil after the mold is removed. Heat-sealing of the sides of the preformed wrapper provides a receptacle with an open top through which a charge of the suppository mass can be injected, and the opening at the top of the wrapper can then be heat-sealed to produce a molded and wrapped suppository.

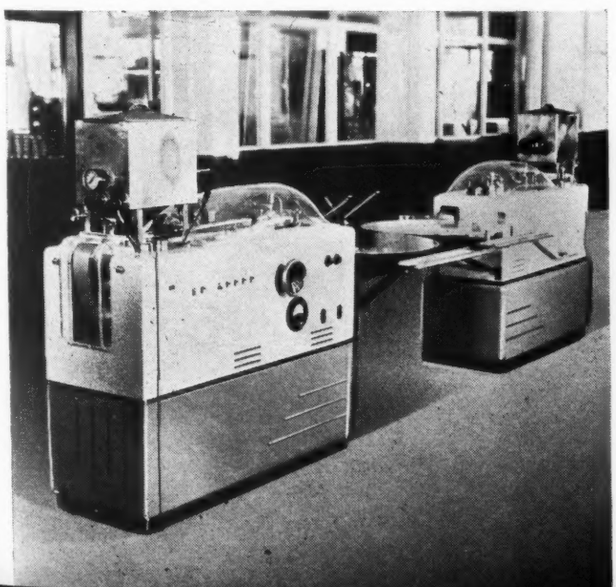
A machine which is entirely automatic in operation has been devised for simultaneously molding and wrapping the suppository. It includes a mandrel for pre-forming the wrapper; electrically heated dies for sealing the side edges of the wrapper; and injector, and electrically heated dies for sealing the top of the wrapper. The operations of these elements are controlled by cams.

The sequence of operations of the machine, designed and built in our own plant, is as follows:

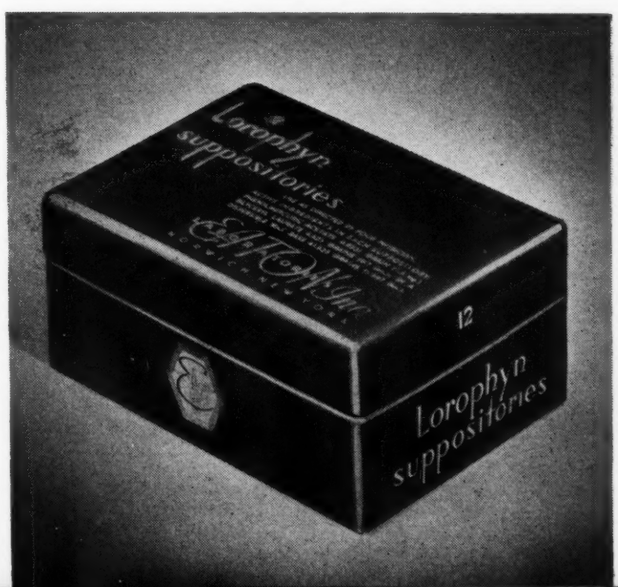
The aluminum foil is pulled from a roll over an idler into a notching device and then through a forming guide which shapes the foil into a "U" shape. It is next pushed through the preform mandrel, side heat-sealed, and filled. The top is then sealed.

The temperatures of the heat-sealing dies are controlled by rheostats and are indicated by thermocouples and pyrometers. The suppository mass is injected into the wrapper in liquid form by means of a piston type pump. The supply tank for the suppository mass is water-jacketed, electrically heated, thermostatically

3—Two machines, set up in tandem, are now in operation at Eaton Laboratories plant. Wrapped suppositories, delivered at center, are immediately boxed.



4—Nicely finished paper setup box has a hinged lid, conveys impression of a quality product. Text and trademark are in white against light blue background.



controlled and equipped with an agitator, thus enabling the temperature of the suppository mass to be very carefully controlled.

In designing the machine, careful consideration was given to each of the following features: smooth, quiet operation; modernistic, streamlined appearance; compactness; simplicity of construction, maintenance and changeover; exceptionally accurate filling; variable speed operation, to the maximum of 70 suppositories per minute.

Since the suppositories are molded and wrapped in the machine simultaneously, the mandrel, sealing dies and injector can be placed very close to each other, and a cam drive was designed to conform to minimum possible machine dimensions. Sketches were then made to fit the dimensions roughly to a form pleasing to the eye. From these sketches, a light, strong, steel tubing form was designed with a dual purpose—to support the weight of the mechanism and to form a skeleton for a cover. One side of the cover was designed as an instrument panel, and the upper half of the other side cover was constructed with a hinge to allow access for easy lubrication. An ultra-modernistic appearance was achieved by a Plexiglas cover over the injector tubing and over the foil roll at the rear of the machine. Both Plexiglas covers have a thoroughly utilitarian function, however, in allowing the machine operator to check the packaging procedure at any time.

After the individual suppository has been heat-sealed and cut off, it is ejected on a revolving polished stainless steel disc. The machine operator picks up the suppository and places it in a partitioned cardboard box while the suppository is still in a liquid state; it solidifies upon cooling in the box and the partitions prevent malformation.

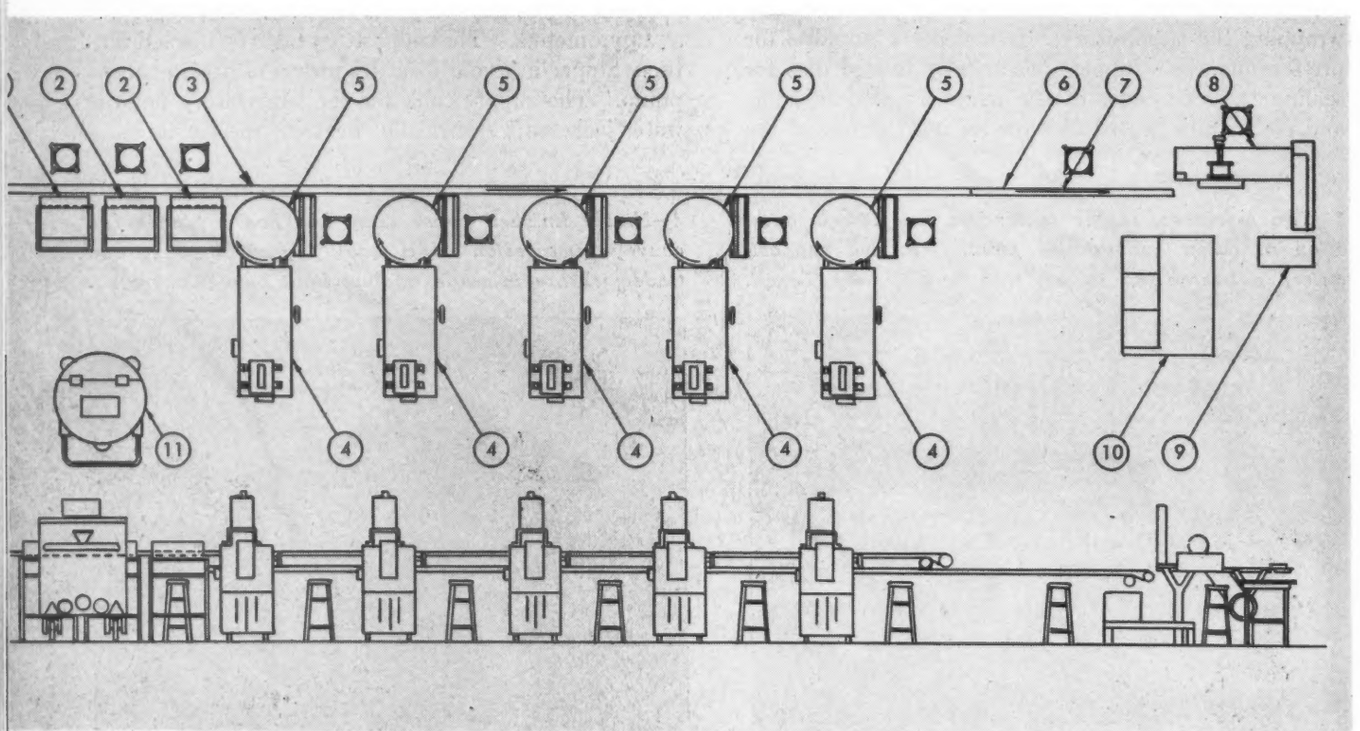
Each suppository contains a carefully weighed spermicidal charge. The weight is held to close tolerance by means of a micrometer adjustment regulating the pump stroke of the injection mechanism. In actual practice, the weight variation between individual suppositories is within a few milligrams, or less than 0.25% variation.

The complete machine occupies a floor space of 13 sq. ft. and weighs about 600 lbs. Machines which had been employed previously for similar purposes occupied 127 sq. ft. and weighed over 6,000 lbs.

The streamlined design of the machine adds greatly to the hygienic appearance of the production line. The Plexiglas cover protection insures antiseptic packaging of the product, and the wrapped suppository is never touched by the operator's hand except at the point where it is finally inserted in the partitioned cardboard box.

CREDITS: *Vinylite-coated foil by Standard Rolling Mills, Brooklyn, N. Y. Set-up box by F. N. Burt Co., Inc., Buffalo, N. Y.*

3—*Floor plan (above) and elevation of the proposed suppository-packaging line at Eaton Laboratories. Operation is as follows: (1) open boxes, place on conveyor belt, stamp control number; (2) insert cellophane pad and partitions; (3) empty-box conveyor belt; (4) suppository machines; (5) insert suppositories in box; (6) filled-box conveyor belt; (7) inspect, place circulars inside of box, close box; (8) wrap box in cellophane; (9) pack boxes into folding carton; (10) pack into corrugated box on skid; (11) portable electrically heated manufacturing and supply tank equipped with pump to fill suppository machine hopper.*



How Many Keys Do You Carry?
Ask the YALE DEALER about Masterkey Systems for HOME, SCHOOL OFFICE, FACTORY
Made in U. S. A.
YALE
INSIDE SET
DIXIAN
steel, plated
BD8081
dull nickel NY21
FOR QUIET, MORE COMFORTABLE LIVING
506 Screen Closer Airliner
570 For the Home Liquid Closer

1

1—*High-visibility colors, simplified identification and unusual pattern of end panel make new Yale package a standout on hardware shelves. Top and side panels, previously neglected, are used for suggestive selling of related products. Product is not only named but illustrated on end panel.*

For Yale & Towne... *a modern merchandising package*

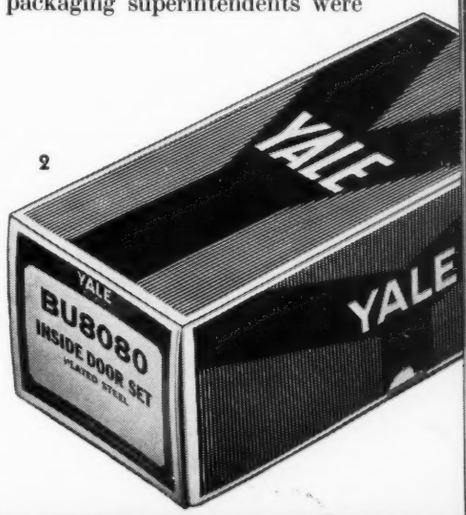
On July 1 the postman will deliver to each of the nation's 30,000 hardware dealers a postcard announcing one of the best-kept secrets of the hardware industry.

Yale & Towne Manufacturing Co. is bringing out a colorful new family of packages for its locks and builders' hardware, designed to draw the spotlight of consumer attention, simplify the problems of stocking and selling, facilitate product use, and do a modern merchandising job for the whole Yale & Towne line.

Seldom, if ever, has any manufacturer in this field given so much attention to the merchandising aspects of his packages—and it is significant that the forward-looking step has been taken by one of the largest manufacturers in the business, with an old and respected name that is in itself a potent selling force. Such recognition of modern packaging principles, in a field that has been notably backward about accepting them, is bound to start a trend.

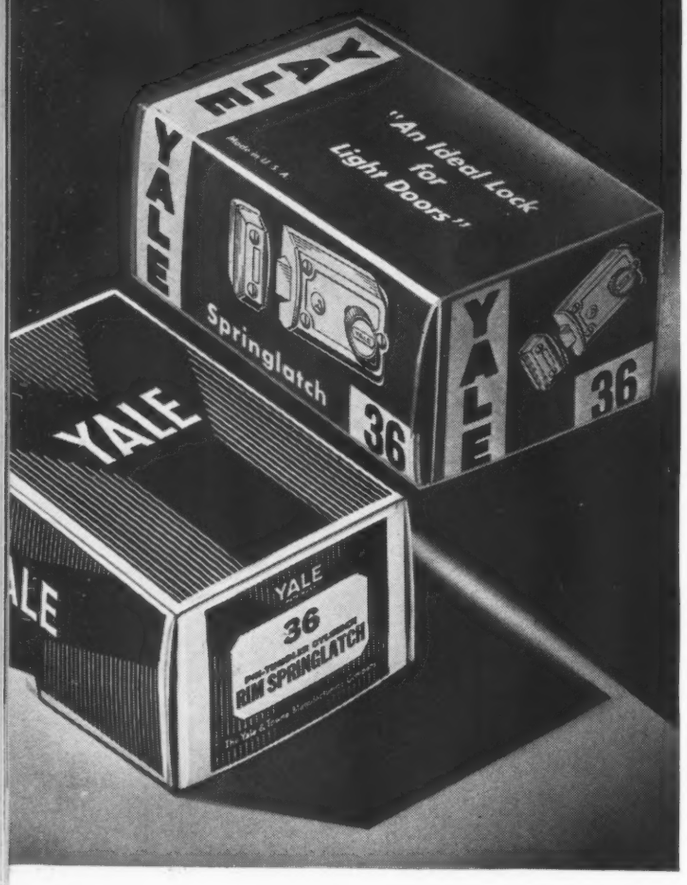
It started with Yale & Towne two years ago, when Meade Johnson, marketing manager of the Stamford Division, was assigned by Mark A. Miller, assistant general manager, to the task of analyzing the division's current packaging and developing a postwar program that would be second to none. In the course of the two years a miniature hardware store was set up in an inner sanctum of the Stamford plant, so that the effectiveness of various designs and colors could be studied in actual shelf competition with rival brands. In close cooperation with the package supplier, literally hundreds of combinations were set up in dummy packages, tested and discarded before the new red-and-yellow package was adopted as standard.

The study started with only one fixed idea: the folding, telescope box then in use had already demonstrated that it was structurally sound and efficient to handle. The stock room and packaging superintendents were



2

2—*Contrast new package (above) with this old one for same product. Yale name was played up well on top and side but it was almost lost on end where most needed.*



3 and 4—Contrasting old and new packages for springlatches. New box is so designed that either end or side panel may face out on shelf. Name in vertical strip gives sharp contrast with usual horizontal shelf pattern.

3 thoroughly sold on the convenience of a package that could be stored and handled as flat blanks, but could be easily set up by hand into the two halves of a sturdy full-telescope box with just a flip of the wrists and without staples, glue or any other fastening. Experience had shown also that this familiar, patented box, with its multiple walls of paperboard and extra strength on the corners, would stand up in shipping under a heavy load of hardware.

The problem resolved itself, then, into one of external design and perhaps of simplification of the sizes and shapes required to handle a line of several thousand products.

When typical lots of Yale & Towne's and a dozen other brands of boxed hardware were lined up on Mr. Johnson's demonstration shelves, it was apparent at a glance that most such packages were pretty drab. It came as something of a shock to find that the Yale & Towne package was as bad as any of them, because when the design was adopted—20 years ago—it was considered a good package and it had been regarded by the company with pride and satisfaction ever since.

The green-and-white box (Fig. 2) did have a good over-all appearance—but it had not been realized that on the store shelf, where the real competitive battle is fought, one panel alone must catch the attention and tell the story. The old box played up the name "Yale" in big letters on top and sides, but on the labeled end panel—the one place where it was always visible from the sales floor—the "Yale" was so small it couldn't be read six feet away. Product numbers were likewise hard to make out from any distance, and product descriptions were almost non-existent. There were no illustrations and no sales messages.

Visits to retail hardware stores disclosed that the packaging drabness characteristic of the builders' hardware section was not true of all hardware lines. Certain items in housewares, insecticides, paints, dog foods, appliances and tools were brilliantly packaged—and almost invariably these were items with the high sales records. Food, drug and department stores showed the same results wherever good packaging principles were followed.

4 This suggested to Mr. Johnson the advisability of setting up two sections of shelves for a comparison. One section was filled with hardware boxes, in about the proportion of various brands found in the average retail hardware store. The other section was stocked with what were considered good examples of merchandising packages for food, drug, cosmetic, toy, soap and dry goods products. The contrast was startling.

Most hardware boxes are gray, brown or a dingy white. They are shelved with their smallest panel outward. Copy, confined to pasted-on labels, is so limited that it requires an experienced builders' hardware man to identify the contents. Only three or four brands have any illustration on their labels. Most labels are printed in one color, a few in two colors; with a few exceptions, the colors lack strength.

(*Page 104*)

Boxes in the other section of Mr. Johnson's gallery were, almost without exception, colorful and eye-appealing. Such boxes are so designed that their largest side must be placed outward on the shelf, for utmost display value. They employ an all-over design, in one to four colors, and usually have copy on all sides. Copy includes plain English identification and description of the product, selling arguments, directions for using, and suggestions of related products. Colors are clean and strong. Pictures, often appearing on several panels, help tell the story better than words. Utmost use is made of distinctive, recognizable symbols such as the swan of Swan soap and the arm and hammer of the famous brand of baking soda.

The striking difference in appearance of boxes in the two displays was a convincing argument for redesign for Yale & Towne. With this need established, and the general objective of a modern merchandising package in mind, it became necessary to get down to specific details as to just how techniques proved successful on food and drug packages could be adapted to hardware.

What is a good hardware box?

The primary function of hardware boxing is to *protect* the product and insure its safe delivery to the consumer. Since the package does not go directly to the consumer, but rests for a time on the shelves of wholesaler and retailer, it must be labeled to *identify* the product. Modern merchandising centers around *display* value of the package to create a buying impulse. In its journey from factory to user, a hardware box is handled or seen by many potential consumers, and it can therefore be a powerful medium to *advertise* the manufacturer and his products.

With these four primary functions of the desired new packaging established, the next step in the program was to list in detail the benefits expected and use this as a checklist against any new design under consideration.

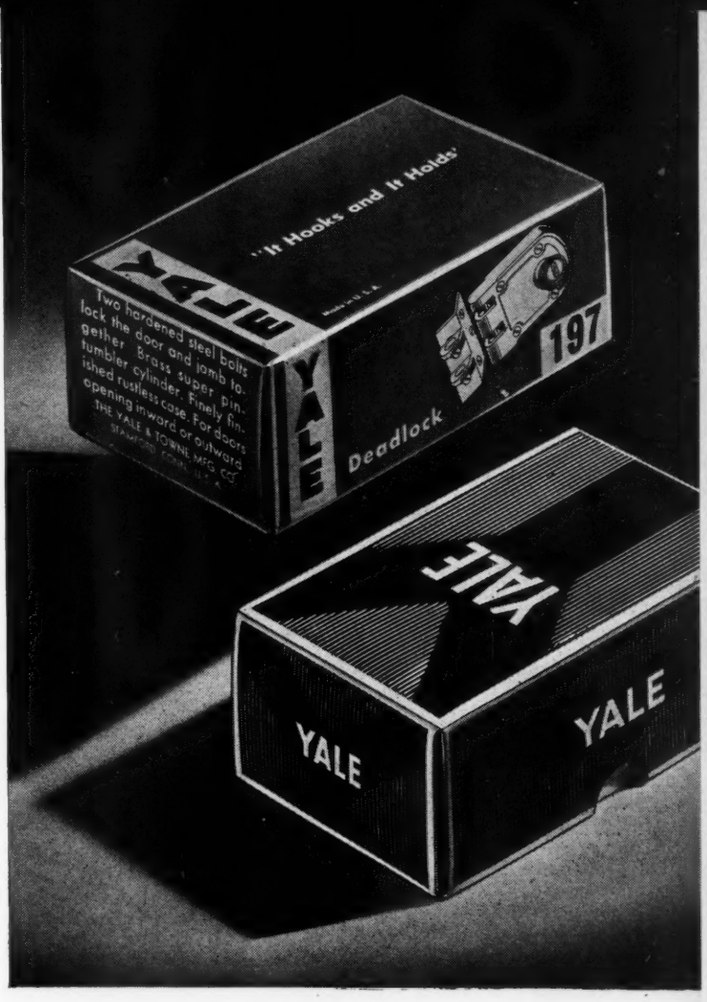
It was determined that the container must not only protect, but it should contain convenient quantities and so far as possible should encourage full package sales to wholesaler, retailer and consumer. Package costs should be lowered if possible, since competitive products were less expensively boxed.

The label should contain a prominent trademark for at-a-glance recognition and the product should be identified by name and, if possible, a picture. Catalog list number and other essential information, such as the material and finish, should be conveniently and legibly placed.

As its own silent salesman, the box should have eye-catching color and/or design, a trademark tied in with trade and consumer advertising, a picture of the contents to stimulate impulse buying, convincing sell copy, and over-all good appearance either alone or in mass. To help the store clerk sell, the package should give basic facts very simply and suggest quotable phrases, and it should make it easy to determine the exact applications and limitations of the product. To maintain the good will of the purchaser, the text on the box

(*Page 105*)

5


"It Hooks and It Holds"
YALE
Two hardened steel bolts lock the door and jamb together. Brass super pin-tumbler cylinder. Finely finished rustless case. For doors opening inward or outward
THE YALE & TOWNE MFG. CO.
STAMFORD, CONN., U.S.A.
197
Deadlock
YALE
YALE
YALE

***5** and **6**—Old and new boxes with back panel out show how space has been used on new for simply worded description of product and function. New boxes carry brief slogans on top to classify product, aid salesman's presentation.*

6

7

***7**—The old Yale packages on left are typical of present shelf-face of various competing lines. Note how the vertical name, illustrations, bold pattern and color make the new Yale box stand out.*

should be such as to maintain the favorable attitude which prompted the original purchase, and the directions for installation or use should be simple and graphic.

Finally, the package should, in every possible way, promote the sale of related items. Again, the trademark would be an effective tie. Copy on the carton and case should tie in with and supplement both trade and consumer advertising in suggesting other products in the line. Use could be made of package inserts to specifically suggest, picture and describe the related products.

Product problems to be met

Mr. Johnson's next step was to examine all of the company's products to determine present packaging practices and requirements so that all possible problems could be anticipated in the new box designs and further simplification perhaps achieved. He found that there were six types of products, each with its own packaging problems:

Locksets. There are about 800 items in the stock line and several thousand other combinations to special order. Different finishes, metals, etc., give several hundred possible variables in each set. Locksets are packed one to a box; 6, 12 or 30 boxes to a case—the case quantity depending on value, weight and turnover. One case is the usual minimum sale to a wholesaler. Weight per unit: 1 to 10 lbs.

Night latches. About 30 items in stock line with perhaps a hundred others to order. Packed one in a box, 30 to a case, a case being the usual minimum sale to a wholesaler. Retailers buy in lots of one to 12 of a certain number. Weight per unit: 1 to 5 lbs.

Padlocks. About 125 items in stock line with three times that number to order. Packed one in a box, six boxes in a carton, 5, 10 or 20 cartons to a case, the case lot depending on weight, value and turnover. One case is the usual minimum sale to a wholesaler, one carton to a retailer. Weight per unit: 3 oz. to 3 lbs.

Cabinet locks. About 100 stock items with several hundred others to order. The best quality locks are packed one in a box, six to a carton; inexpensive numbers are packed six to a box. There are no case quantities; a box is the usual minimum sale to a retailer. Weight per unit: 2 oz. to 1 lb.

Door closers. About 25 stock numbers, each in a variety of finishes. Packed one in a box, three, six or 12 to a case. Case lot depends on weight, value and turnover; a case is the usual minimum sale to a wholesaler. Weight per unit: three to 25 lbs.

Miscellaneous hardware. Several thousand items in a great variety of sizes, weights, shapes, values, etc. Packed in lots of from one piece to one gross and in a considerable variety of containers.

Container specifications

While the product study did not suggest any change in the construction of the folding boxes being used, it did result in a considerable reduction in the number of sizes and types used. Lock sets, for example, now use eight sizes of boxes instead of 15. This permits the supplier to run a larger volume on certain numbers and the resulting economy is actually sufficient to pay the cost of the package change. Even with three-color printing instead of one-color, Yale & Towne's over-all packaging cost is now less than it was before.

Twenty years ago, before the last previous packaging change, Yale & Towne used fine quality setup boxes, which were made locally and delivered daily to mini-

mize the storage problem. Nevertheless, the management felt that they took up too much room, were awkward and expensive to handle and, since they sometimes collapsed under abuse, failed to give adequate protection to the product. After a period of experimenting with clipped, stapled and metal-edged types, the company finally standardized on the Simplex folding box. It was found that this box has great strength and resilience, particularly around the edges and corners where other boxes would often fail due to drops or heavy loading. It is easy to handle because it requires little space for storage in the flat and no equipment to erect.

The only structural change in the new packaging program is the adoption of a special boxboard, developed by the supplier, which is of an unusual type for hardware boxes. For many years hardware boxes have been made from the cheap yet durable types of boxboard such as mist-grey lined chip, single manila-lined chip, plain-bending chip or related variations of these three basic types. Some are also made from solid kraft board, which has an advantage in strength but presents a drab appearance and a comparatively poor printing surface. Few attempts have been made by hardware manufacturers to combine boxboard strength with appearance and printability.

The desire for printability and good color led Yale & Towne to pioneer this new boxboard which combines the strength of a specialty boxboard with the appearance and printing surface usually found only on high-grade coated paper. It is a laminated sheet consisting of a special bending boxboard combined by a strong-bond adhesive to a sheet of litho-coated one side paper. This litho paper is so designed that it will take the hard fold necessary in setting up this type of box, and it also adds bursting strength and rigidity to the boxboard.

The finished caliper of the boxboard is approximately 0.026 in. for the larger sizes and 0.022 for the smaller boxes. Boxes with and without display lids and of both one- and two-piece construction are used, although the two-piece full telescope box illustrated herewith is the most common type. Where possible the flaps of box and lid are at right angles to each other, giving three thicknesses of board on all four sides. With this construction and a flexible board, the box will yield sufficiently, if dropped on a corner, to prevent collapse.

Experimentation with color

While it was apparent from the preliminary study of successful packages that an eye-catching color combination would be a must for the new Yale & Towne boxes, a great deal of study and experimentation was engaged in before the exact shades of red, yellow and blue shown in Fig. 1 were adopted.

The first consideration was the prevailing color pattern of competitive boxes and labels, so that Yale & Towne might stand out on the shelf with the greatest possible distinction. It was found that black and yellow are the colors most widely used on the labels of hardware boxes, fully 40% of the labels in the average store being black on yellow. Next in popularity are white on blue, white on red and red on white. In most cases, color is confined to the label and since the area of the label is usually somewhat less than that of the end of the box, the colors are toned down by the neutral box color. It was early decided that the new Yale & Towne boxes would have an over-all background of bright color, and that where pasted-on end labels were required they would have the same over-all background color.

Working with poster paints and hundreds of dummy packages, Mr. Johnson tried out every conceivable color combination and tested it in his shelf display.

He also experimented with a number of color theories proposed by the sales force. One plan, much used in hardware boxing, is to have a different predominating box color for each material or finish of a product. The advantage claimed for this is that the storekeeper and the manufacturer's salesman can tell by a glance at the shelves the finishes in stock and the ratio of, for instance, steel to brass. But it was found to have the disadvantage that it destroyed—or at least weakened—the family resemblance of a group of packages. A

***8**—Cartons for aluminum-finished padlocks deviate from the rest of the line only in that aluminum ink, instead of yellow, is used as background in name and number panels and on the illustrations.* ***9**—Cartoon technique is used for effective sales message, addressed to dealers, on one side of the padlock cartons.*

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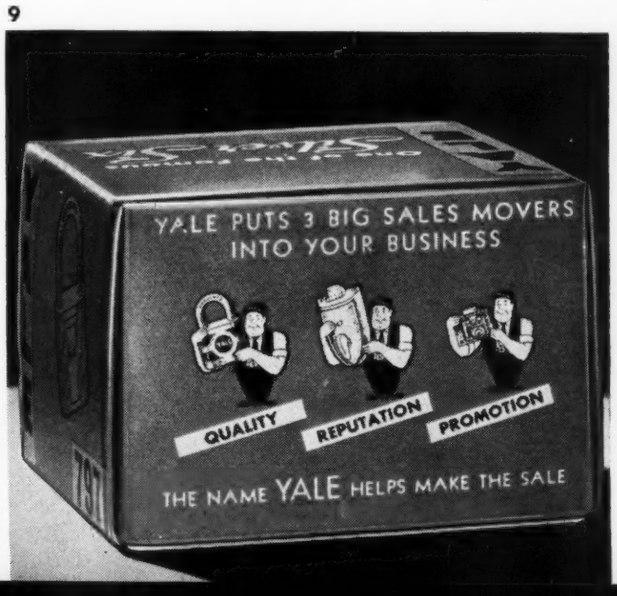

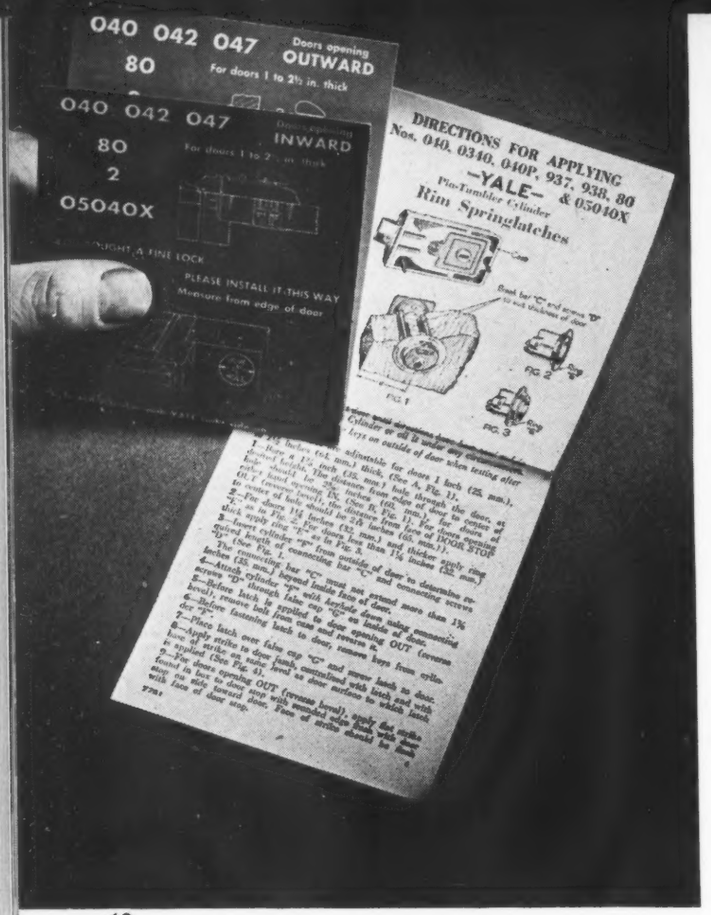

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***10**—Old directions for installing locks and latches (white sheet) were complicated, confusing. Distinction had to be made between doors opening inward and those opening outward. New simplified direction sheet, printed in reverse white on dark red, devoted one side to inward and one to outward opening doors. Instructions are diagrammatic, with few words.* **11**—*Consistent with lock-set boxes, one side panel is used for recommendation of related product—this is an extra sales-builder for dealers.*

variety of colors grouped on a shelf, furthermore, has less attention value than a large mass of a single color.

After much experimentation and testing of dummy packages alongside those of competitors, a rich dark red was found to give the greatest contrast and the greatest attention value and hence was adopted as the standard predominating background color of all Yale boxes.

The theory of product identification by color was adopted to the extent that the secondary color of any box is, so far as possible, the characteristic color of the finish of the product contained. When a picture of the product is used in color, this color is usually that of the product. Since most hardware is brass, it is usually yellow, and—as shown by Fig. 1—a shade of yellow was chosen not so much for its close resemblance to brass as for its brightness and sharp contrast with the red.

The principal deviation from this color pattern is in the case of the "Silver Six" padlock boxes. These padlocks have an unusual, silvery finish, and in place of the yellow the boxes use an aluminum ink.

A deep, rich blue was chosen as the third color for most packages, and is used against the yellow or silver to print the Yale name, the illustration of the product, and the large stock number. In a few cases where the product is black or a difficult color such as red, black is the third color and illustrations are black and white.

All selling copy on all of the boxes is in reverse white on the red. The uniform red is so predominant on all the boxes that it gives an unmistakable family continuity regardless of the variety of secondary colors.

The panel of the box which would face outward on the shelf had to accommodate (1) the trade mark, (2) name and/or picture of the product and (3) the catalog number, plus, in some cases, designation of the metal and finish. These were the minimum elements considered necessary for this panel after a lot of miscellaneous information previously used was eliminated or transferred to other panels. A great deal of thought went into the handling and replacement of these elements.

The simple block lettering of the name "Yale" was adopted as the trademark, but it was questionable whether it should be used horizontally, vertically or in some other fashion.

Away from the horizontal

Here the test shelves, filled with nearly 50 brands of hardware, yielded another helpful fact: Printing of trade marks, names and other elements on the end panels of hardware boxes was almost always horizontal, and the mass arrangement of brands on the average store shelf thus gave an impression of horizontal movement. It was found that when the name "Yale" was printed on a bright yellow *vertical* stripe at the left side of the end panel or label, it interrupted this horizontal movement strikingly and helped draw the eye to the Yale boxes. Since it was only a four-letter word, easily recognized and read either way, this consideration was considered more important than the slightly easier readability of the name printed horizontally. Finally, research showed that the dealer has a tendency toward stacking boxes of the same size and thus a vertical pattern is likely to be preserved, whereas a horizontal pattern is usually broken from one stack to another.

A second spot of yellow on the red end panel is the small rectangle in the lower right-hand corner on which

the catalog number and other identification are printed in blue. Occasionally it is necessary also to carry other wording on this panel, such as "cylinder front door set" (in white) and the style, "Dixian" (in yellow), but usually the remainder of the space is used for an accurate perspective drawing of the product, in yellow with blue details. Since this picture is almost self-explanatory, it is possible in the case of some of the smaller boxes to omit all supplementary wording, or to name the product on a side panel, where there is more room, just for confirmation.

Most of the small boxes have one side panel identical in design and labeling with the end panel. Since the boxes usually are elongated in shape, this side panel presents a larger area. The dealer will be encouraged to stack his boxes on the shelf with this larger labeled side facing out, if possible—thus borrowing a leaf from the sales experience of supermarkets, who usually take advantage of this display value on food cartons. The alternative of small end or larger side labels will permit the dealer to adjust his stacking so as always to present the appearance of well-filled shelves.

End-label requirements

In some product lines, the end-label information is printed right on the box at the box factory. In some lines such as lock sets, however, where there are a number of variations of catalog number for products identical in size or shape, the end label is printed separately and pasted on at the time of packaging. The paper labels match the red box color so closely, however, that it is not apparent that they are pasted on except on close examination. Use of these paste-on labels on standard-sized boxes for many large lines has been instrumental in reducing the cost of packaging, and there has not been—as is usually the case—any deviation from the good over-all box design.

The catalog number, material and finish of wrought locksets posed the toughest problem. This product includes 55 different sets of six different types in each of 10 different designs. Each type has several lock variables, and each design has three or four different knobs. In addition, each set is made from any one of several different metals and in perhaps 50 different finishes.

Formerly, these sets required 15 utility boxes with about 150 plain labels. Most of the variable data were put on with rubber stamps—a slow, costly job. Now the sets are boxed in seven utility boxes. For each design, there are 14 different three-color labels containing a picture of the product. The metal, set number and finish are printed at Yale & Towne by machine.

With the end-label problems disposed of, much thought was given to the "sell" copy to appear on the other four or five panels of the boxes, which would go into action once the box was removed from the shelf for examination or purchase. This copy was directed toward both salesman and consumer.

One interesting feature is the use of "catch" phrases describing the product contained in the box, which may be useful to the untrained salesman as well as impressive to the customer. These phrases vary for each catalog number. On boxes for springlatches and deadlocks appear such phrases as: "It hooks and it holds"; "The lock that never forgets"; "Most convenient springlatch ever made"; "A warded lock"; "An ideal lock for light doors."

These "quotes" are intended not to exaggerate the qualities of the hardware, but on the contrary to be perfectly honest in suggesting the limits of their application. A lock that is ideal for light doors, for instance, is not recommended for heavy front doors, nor an inside lock for an outside door. Like most companies, Yale & Towne makes three qualities of hardware, which might be roughly classed as good, better and best.

A clear-cut explanation appears on the back end panel. Of the lowest-priced springlatch it is said merely: "This lock will serve to keep out the curious. Warded construction. Flat key, Easy to install." On the box for the springlatch of better quality appears: "A good lock for light interior doors. Can be used on narrow stiles. Five disc tumblers. For doors opening inward or outward." The best-quality lock is described as: "An excellent lock for closets and other light doors. Can be used on narrow stiles. Five pin-tumbler cylinder. For doors opening inward or outward."

This brief explanation in easily understood terms tells both salesman and customer all that they need know to determine whether the lock is suitable for the application in question.

Tops of the boxes for front-door sets, which are about 11 by 4 by 3 in., help sell Yale keys. In addition to a picture of the famous key, they carry the wording: "How many keys do you carry? Ask the Yale dealer about Masterkey systems for home, school, office, factory."

Ample space on the side panels of these larger boxes permits carrying pictures, catalog numbers and selling phrases for at least four other Yale products—door closers, screen closers, (*Continued on page 170*)

12—*New, punchy folders for related products are used liberally as package inserts promoting all Yale products.*

Cellophanes... *they look alike, but there are "57 varieties"*

*by W. G. Hunter**

The story of the cellophane industry in America begins in Buffalo, N. Y., in 1924, at which time du Pont erected and put into operation the first plant designed to manufacture the film that had formerly been imported from France.

The early production of cellophane[1] was confined to one type only—plain transparent film—and its use as a packaging material was limited to products that required no protection against moisture change. Soon a variety of delicately colored films was added, thus increasing the appeal of this novelty packaging specialty.

Limited application and resultant high price restricted the early uses of these films to luxury items, such as bottled perfumes and expensive boxed candy. However, the American public, quick to recognize the value of visibility in packaging materials plus the clean, sparkling quality-lifting appearance of products packaged in cellophane, created an immediate demand that justified increased production facilities. The higher volume and resultant lower cost were soon reflected in lower sales prices, thereby opening new markets and opportunities for greater expansion.

Appreciative of the need for a film affording protection from water-vapor, technicians worked tirelessly to develop a type of cellophane having moistureproof characteristics. In 1927, du Pont succeeded in developing a basic moistureproof type, thus opening the door to large-scale protective packaging of the many consumer items requiring either the retention or exclusion of water-vapor. The baking industry, cigar and cigarette manufacturers and others quickly realized the advantages of a transparent moistureproof wrapping material and through the cooperation of these industries and the packaging machinery manufacturers, the use of moistureproof cellophane was expanded into the protective packaging field.

It soon became evident, however, that in order to attain higher speeds and lower packaging costs, it would be desirable to develop a material that would seal to itself with the application of heat and pressure. Technicians accepted this challenge and accordingly developed a special heat-sealing type of moistureproof cellophane.

Thus began the development and introduction of a long list of various types of cellophanes, tailored to specific product requirements. Constantly increasing volume made it possible for du Pont to institute 21 consecutive price reductions. Today the film which cost $2.65 per lb. back in 1924 is selling for only 33 cents per lb.

For example, sugar-coated doughnuts require protection against too-rapid loss of moisture from the doughnut itself but also need a packaging material that will not permit a concentration of water vapor within the package and thereby soften or dissolve the sugar coating. Accordingly a group of films were developed to control the rate of water-vapor transfer in

* Manager of Technical Service, Cellophane Division, E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.

[1] The term "cellophane" refers to regenerated viscose cellulose films, which should not be confused with transparent plastic films of non-viscose types, such as cellulose acetate and polyvinyl alcohol.

1—Sugar-coated doughnuts require protection against too-rapid loss of moisture but cellophane must pass sufficient water vapor to prevent sogginess of coating. LST films were developed for such products. **2**—*Milk-bottle hoods must have an anchored, water-repellent coating; are usually colored. No. 300 LAC is recommended.*

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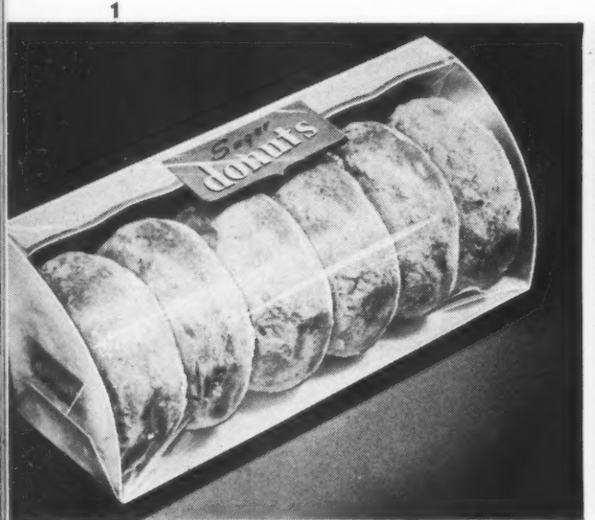

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PRINCIPAL TYPES, CHARACTERISTICS AI

DU PONT CODE DESIGNATIONS

A—Anchored (water-repellent)	L—Less moistureproof than standard
C—Colored	M—Moistureproof
D—Moistureproof coating, one side only	O—Opaque
H—Partially resistant to blocking in humid atmospheres	P—Plain (non-moistureproof)
J—Flame resistant	R—Rancidity retardant
	S—Heat sealing
	T—Transparent (uncolored)
	U—Low surface slippage

CODE	CHARACTERISTICS	PRINCIPAL USES
	Plain or non-moistureproof films	
300 PT	Non-moistureproof, air-, dust-, grease- and oilproof. Readily absorbs water. Impermeable to dry gases. Permeable to moist gases in proportion to solubility of gases in water.	General wrapping purposes wherein moisture protection is not needed. Packaging non-edible oils and greases. For edible oils, see 300 and 450 PT-62.
300	Same characteristics as 300 PT. Average durability. Somewhat greater dimensional stability than 300 PT.	Laminations. Lining fibre container bodies. Packaging edible oils and greases. Wraps for bacon, sausage, etc.
300 PHT	Similar to PT but offers greater resistance to sticking and blocking at high relative humidities; of lower durability than PT.	Box liners. General use in high humidity atmospheres.
300 PC	Non-moistureproof colored film available in amber, tango, red, light green, dark green, pink, orchid and dark blue.	General wrapping purposes. Ribbons, cord.
300 PRC	Non-moistureproof colored film. Color relatively fast to light and resists bleeding in water, oil or grease. Retards development of rancidity of products containing oils or fats. Available in tango and black only.	Meat and food wrapping where non-bleeding color or protection against rancidity development due to ultra-violet light is desired.
300 PO	White, opaque; non-moistureproof.	Millinery. Separator and circuit identification in cable fabrication.
300 450 PJT	Flame-resisting; non-moistureproof film. Carries official Fire Underwriters' rating No. MH-2977.	Decorative materials. Flame-resisting windings on wire and electrical cables.
300 PJC	Same as 300 PJT, except colored. Available in red, dark blue and light green.	Decorative materials. Flame-resisting windings on wire and electrical cables.
450 PT	Same as 300 PT but having greater thickness and durability.	Wraps for products requiring steam sterilization. Bags for dried vegetables. Box and carton overwrap.
450 PT-62	Same as 300 PT-62 but having greater thickness and durbility.	Bags for macaroni, noodle and other paste goods. Packaging edible oils and greases.
600 PT	Same as 450 PT-62 but having greater thickness and rigidity.	Window boxes.
	Intermediate moisture protection films	
300 LST	Partially moisture protective. Heat sealing. Durability equivalent to 300 MST-52.	Packaging products that require controlled rate of moisture loss; i.e., slow enough to prevent excessive drying but fast enough to avoid sogginess. Sugared doughnuts, flower bulbs.
300 MSDT	Similar in moisture protection to LST. One side same as PT; other side same as MST. Natural tendency to curl. Heat seals normally with coated surfaces together. Weak seals with coated to uncoated side.	Laminating to other materials.
300 LAT	Offers somewhat greater moisture protection than LST. Water resisting for use on wet or moist products. Not heat-sealing.	Special containers for cottage cheese, salads, etc. Cut flowers. Milk bottle hoods.
300 LAC	Similar to LAT, except colored. Available only in red, tango and light green.	Milk bottle hoods.
300 MT-31	Low rate of moisture-vapor transmission. Sealed with lacquer-type adhesives or with nitrocellulose solvents plus low heat. Very weak heat seals. Grease- and oilproof. Impermeable to dry gases or gases of low water solubility. Very low permeability to water-soluble gases.	Wrapping cigarettes. Carton overwraps. Cigar tubes.
300 MT-32	Moderate heat sealing. Otherwise, same as MT-31.	Direct wraps on cigars.
300 MT-33	Standard moistureproofness non-heat sealing; special surface characteristics.	Direct wraps on caramels, nougats, kisses, etc.
300 450 MT-35	Same as MT-31 except film is extremely flexible and possesses extra durability at low temperatures.	Twist wraps. Carton liners for frozen foods (dry packs).
300 MAT-1	Standard moistureproofness. Better than average durability and flexibility. Non-heat sealing.	Direct wraps on wet products not requiring heat sealed closure.
300 MAT-2	Standard moistureproofness. High flexibility and durability particularly at low temperatures. Non-heat sealing.	Liners for frozen food cartons (wet packs). Direct wraps on frozen meat, etc., not requiring heat-sealed closures.

ND USES OF DU PONT CELLOPHANES

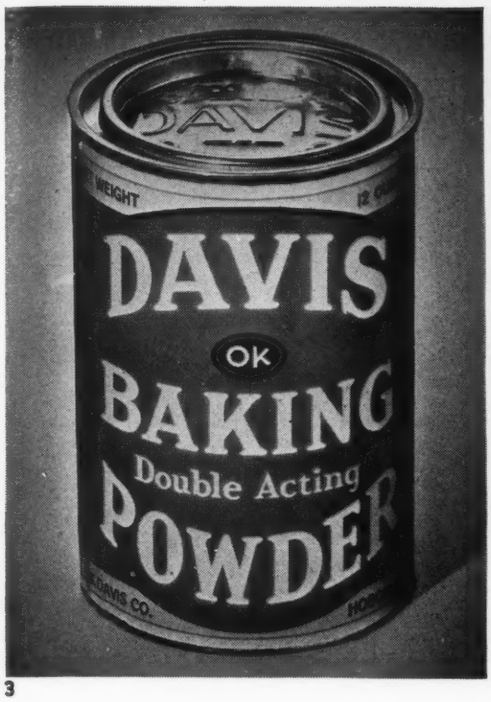
CODE	CHARACTERISTICS	PRINCIPAL USES
	Moistureproof heat-sealing films*	
300 MST-51	Standard moistureproofness. Good flexibility and durability at low temperatures.	Wrapping bread. Twist wraps on small objects.
300 MST-51T	Similar to MST-51, but specially prepared for direct contact with tobacco.	Printed wraps for cigars or cut-plug tobacco where heat-sealing film is desired.
300 450 MST-52	Standard moistureproofness. Average durability.	Carton overwraps. Direct wraps on greasy products.
300 450 MST-53	Standard moistureproofness. High flexibility and durability, particularly at low temperatures and low humidities.	Bags or Transwrap units for packaging products requiring extra durability and puncture - resisting wraps, particularly at low temperatures. Bags for frozen foods (dry pack).
300 450 MST-54	Standard moistureproofness. Better than average durability and flexibility.	Bags to package powdered products that require normal moisture protection. Bags for greasy and oily products. Laminations. Carton overwraps.
600 MST	Same as 450 MST-54 but having greater thickness and durability.	Special uses.
300 450 MST-56	Superior moistureproofness and heat-sealing properties plus all characteristics of MST-54.	Carton overwraps for hygroscopic products. Bags for hygroscopic powders. Highly moistureproof laminations.
300 450 MST-57	Superior moistureproofness and heat-sealing properties plus all characteristics of MST-53.	Bags or Transwrap units for pellet-like products needing super moisture protection.
300 MST-58	Similar in physical properties to MT-31 and 32 except full heat-sealing characteristics.	Direct wraps on cigarettes and other small packages.
300 MST-58-T	Similar to 300 MST-58, but specially prepared for direct contact with tobacco.	Direct wraps on cigars and cut-plug tobacco where fully heat-sealing film is desired.
300 600 MSC	Similar to MST-54 in all properties except colored. Available only in 300 MSC red, tango and amber; and 600 MSC red, light green, dark green, pink, orchid, dark blue.	Colored overwrap for cartons on products requiring moisture protection. Opening tapes. Weaving and braiding.
300 MSC	Similar to 300 MST-51 except colored. Tango only.	Bread wrapping. Twist wraps.
300 MSJC	Same as 300 PJC but possessing in addition to the flame-retardant property standard moistureproofness and heat sealability. Available in red, dark blue and light green.	Decorative materials and fabricated articles.
300 MSRC	Similar to PRC with addition of standard moistureproofness and heat-sealing properties. Tango and black only.	Heat-sealed packages for products requiring protection against rancidity development.
300 450 MSAT-82 & 86	Standard moistureproofness. Extra strong heat-sealing properties. Water resisting to withstand contact with moist or aqueous products. Highly flexible and durable.	Direct wraps on wet products that require strong heat seal and standard moisture protection. Suitable for products requiring pasteurization. Liners for fibre containers for aqueous products. Wrapping products to protect them against water, oil, gases, etc. Suitable for moderately hygroscopic powders. Strong durable bags for hot climates, either dry or humid, or moist cold (40° F) conditions.
300 450 MSAT-83 & 87	Standard moistureproofness. Extra strong heat seals. Water resisting. Highly flexible and durable at low temperatures and low humidities.	Direct wraps or bags for frozen foods, fruits, etc. Liners or overwraps for frozen food cartons. Suitable for meat casings and similar packages of meat products. Bags for articles needing protection against water, oils, gases, etc. Strong durable bag for cold, dry climate.
300 450 MSAT-84	Similar in physical properties to MSAT-82 but having superior moisture-vaporproofness and superior heat-sealing properties.	Same uses as MSAT-82, but on products that are extremely hygroscopic or which need special protection.

* All moistureproof heat-sealing films are inherently greaseproof and oilproof and have same resistance to gas permeation as indicated for MT-31.

GENERAL NOMENCLATURE—DU PONT CELLOPHANES—YIELD, THICKNESS FACTORS

Plain Cellophane	*Approx. sq. in. per Lb.*	*Approx. Thickness*
#300*	23,400	.0008″
#450	16,600	.0012″
#600	12,400	.0016″
Moistureproof Cellophane		
#300	21,000	.0009″
#450	15,300	.0013″
#600	11,600	.0017″

* The numbers 300, 450 and 600 have no further meaning than being arbitrary designation of thickness.



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3—For lining fibre container bodies for highly hygroscopic products, MSAT-83 or -84 would be indicated.
4—Cigar tubes and box overwraps take MT or MST grades, depending on whether they are to be heat sealed.

the desired intermediate range to meet the needs of products of this type.

Some products, such as frozen foods or other items that are packed in damp surroundings, require, in addition to water-vaporproofness, a high degree of resistance to actual contact with free water and assurance that package closures will not be weakened by such contact with water. Special films with anchored moistureproof coatings have fulfilled requirements of this type and are in widespread use.

Through combinations of such qualities as moistureproofness, heat-seal strength, flexibility, water resistance, flame resistance, light transmission, gas permeability and other elements, a wide variety of films are made possible. Research is continually working to develop and perfect ideal films to meet the packaging requirements of various industries and to modify and improve existing types to attain the maximum protection and efficiency at the lowest possible cost to the user.

During World War II, the ingenuity of research chemists in the cellophane industry was challenged by an emergency request from the Government to develop a special type of cellophane that would resist permeation by poison gases. Our Armed Forces wanted to be prepared against the possible use of such gases by enemy air forces. Accordingly they designed a protective cover that could be folded into a small package, easily carried by each soldier, and quickly donned in such emergencies. The product specifications were extremely difficult to meet, but since cellophane inherently resists permeation by gases, the industry had a starting point from which to begin work. In a relatively short time, and with the cooperation of cellophane converters, a special film was developed and approved, and gas capes by the millions were in production. The cellophane body of these capes was olive drab in color, flameproof, waterproof and gasproof, and of a non-lustrous finish to assist in concealment and to camouflage the wearer. The top was also non-lustrous but transparent to give the soldiers an ample vision field and to facilitate the soldier's movements.

Aside from the considerable tonnage of film consumed in the manufacture of gas capes, additional large amounts were used during the war years for packaging rations, Lend-Lease foods, replacement parts and a multitude of other items. Sometimes cellophane by itself was used; frequently it was laminated to itself or to some other material to increase package strength. In each case, the particular type of cellophane needed to fill the package requirements had to be carefully selected or developed and the industry's wide experience in developing "tailor-made" films proved invaluable.

Now that war requirements have ceased, du Pont has reconverted cellophane production to peacetime industry demands. Since there are now so many different types of film all classed under the general name of "cellophane," it seems advisable to publish a listing of the principal du Pont types in general use (types for some highly specialized uses are not included). From the table it will be seen that vast progress has been made since 1924, when only a single type of cellophane cellulose film was being manufactured by the du Pont company.

1 1—*White & Wyckoff Mfg. Co. began styling up boxed stationery in the late '30s. During war years women wanted more of it for letters to the boys overseas. Among this year's items are more florals, gay stripes, and novelties like "Beau Catcher," "Vanity," and "Couturier," a box harmonizing with checked design for the linings of the envelopes.*

Feminine letter writers set styles

. . . for stationery box wraps

It used to be that only white writing paper, ivory or possibly a very pale gray were considered good form.

The modern age seems to have thrown such etiquette to the winds. America's feminine letter writers today want colored stationery decorated with flowers, colored borders, embossed or scalloped, and envelopes printed or lined with colored decoration.

This demand is having a tremendous influence on the design of packages for boxed writing papers, or papeteries as they are known in the trade.

The stationery field is one of the most important users of decorative papers for box covers. Also, through agreements between the stationery companies and the converters of decorative papers, sometimes the printing and embossing rolls prepared for private designs used by the stationers are made available to the paper converters for use in printing stock design papers after they have served their purposes as a private design.

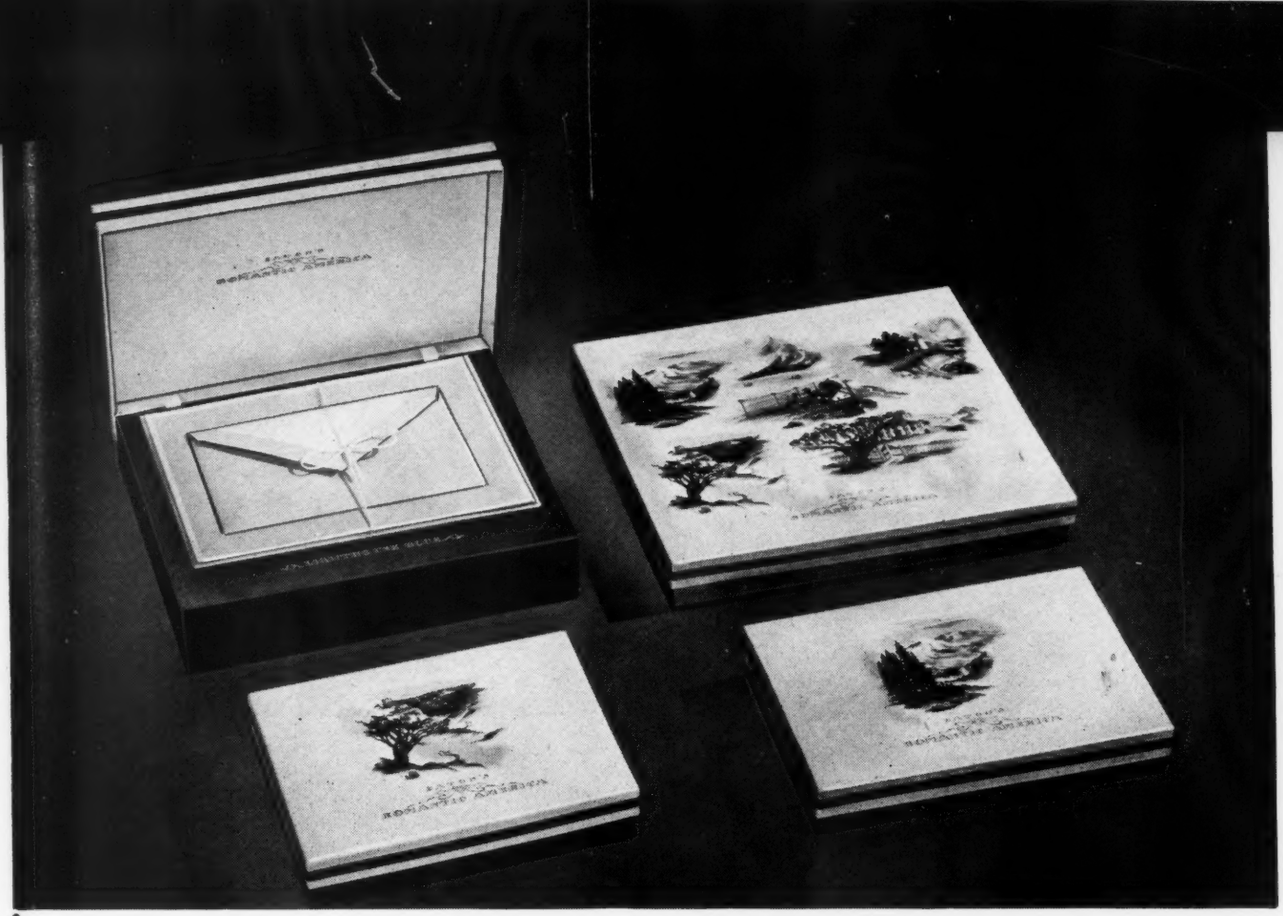
For these reasons package design for the stationery field has a broad influence on design trends in decorative papers used later for box wraps in many other fields.

The vogue for floral decorated and colored writing papers began in the late '30s. Writing paper manufacturers realized that to sell more boxed stationery something should be done to style it up.

Several companies started at that time in a small way. White & Wyckoff Mfg. Co., one of the leaders in the field of novelty writing papers, for example, introduced at that time a box called "Garland," for a paper with a scalloped embossed edge and blue border adapted from the edging of a linen guest towel. The company felt this was quite a bold venture. Almost immediately, however, demand far surpassed supply. Spurred on by this success the company introduced other numbers—even gayer and departing further from the conventional—papers with delicate floral designs called "Gardenia," "Marguerite," "Magnolia," "Wild Rose," "Pansies for Thoughts" and "Daisies Won't Tell." All of these papers, floral decorated, were packaged in boxes with colorful cover designs repeating the motifs used on the stationery itself, or with the same colorful design as that used for the printing of the inside of the envelopes.

This was in 1939 and 1940. Then came Selective Service and thousands of boys went away to camps; then the war, which took them to the four corners of the earth. Immediately this meant increased letter writing—millions of women writing letters to their sons, brothers and boy friends in the services. The letters so written demanded sentiment. When the girls wrote on the flowered stationery, the boys liked it—the colorful flowers on a sheet of paper arriving in a drab foxhole or on a muddy Pacific Island were symbols of the love, friendship and happiness waiting for them back home.

Business in novelty stationery in colorful boxes boomed. White & Wyckoff say their business, due to this gay styling of papeteries, has increased several fold



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2—Eaton's "Romantic America" is interpreted on box covers by full-color, offset illustrations of five sections of the country: East, South, Midwest, Southwest, Northwest. **3**—*Delicate floral motif decorates paper and box wrap for Eaton's "Reflections."* **4**—*Fabric labels are used on black-and-bronze box for Eaton's "Signature Series."*

since 1939. In spite of the difficulties of obtaining colors, printing plates, paper stock, boxboard and all the other adjuncts to the preparation of packaged stationery, this company forged right ahead during the war years with new designs catering to the public appetite for a romantic note in writing papers. Every indication points to a continuance of this demand.

White & Wyckoff's 1946 line, introduced in May, includes several of the early floral items which have become almost staples in the line. In addition there are other floral motifs—one called "Feminity" which has a floral box covering duplicating the design used for the inside printing of the envelopes. Another paper called "Remembrance" has a border design of flowers repeated as an all-over diagonal design for the box cover. A boxed paper which comes in several color combinations called "Ming" is also a popular seller. This is presented with a Chinese motif for the box cover and for border design on the paper incorporating symbols of pagodas and rickshaw men. Inside each box is a printed insert telling about the first paper made by the Chinese and that this paper is a modern reproduction of ancient Chinese paper, manufactured by great machines which assure uniformity and quality.

Among the new numbers in the line is a box designated as "Couturier Checks and Stripes" with box top designed with pictorial symbols of dressmaking—needle, scissors, thread and swatches of fine checked cloth. The cloth is duplicated for the printing of the envelope lining. Another paper called "Diagonal

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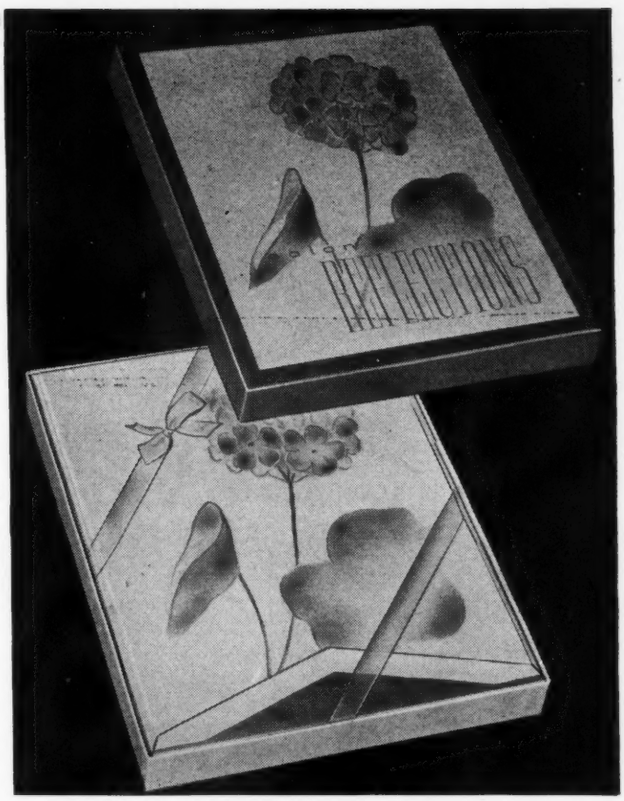

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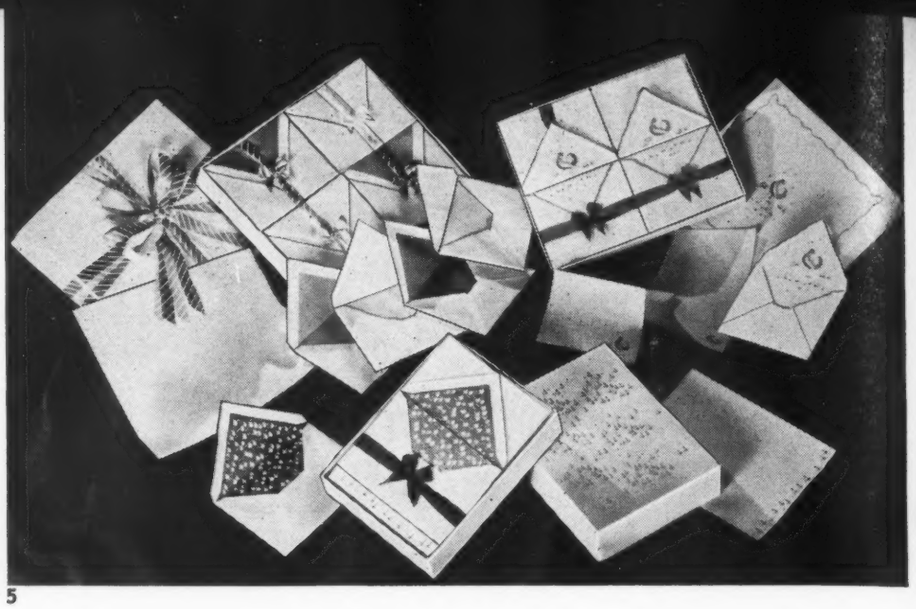

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5—P. P. Kellogg Co. has added a new collection to its "Correspondence Elegancies" started in 1945. Each is done in own color scheme, with box decor harmonizing with color and "mood" of paper. Illustrated here are "Melange," "Coq Piquant," "Fair Sails."

Stripes" has a box top covered with brilliantly colored diagonal stripes to match the striped printing on the inside of the envelopes. A paper called "Vanity" is given eye appeal by use of a pictorial design on the cover showing line drawings of feminine figures using cosmetics and beauty aids. A satin ribbon bow in contrasting color affixed to the box lid completes the package, while inside the envelopes have the same design as the box cover. The same motif is adapted for the paper border which is further enhanced by delicate lacy embossing down the right-hand margin.

In the days of wasp waists and bustles, the girls used to adorn themselves with bows of ribbon—at the throat, in the hair, as a sash—which they punned as "Beau Catchers." White & Wyckoff introduces a new boxed stationery called "Beau Catcher." The multicolored cover design depicts an over-all theme of bows while each sheet of paper in the box is printed with a tiny line drawing of a girl looking into a mirror adorning herself with bows.

Once this company even had a perfumed stationery, inspired by soldiers who wrote home to their sweet hearts asking them, "Please put some of your perfume on your stationery." This paper was scented with a perfume called "Blue Peter" after the famous marine signal flag—blue with a white square—flown when a vessel is ready to sail and in this case used as a signal to "sail home soon." The box carried a replica of the famous sailing flag.

Production of these novelty items in stationery is costly and one firm said, profitable only if orders can be obtained for a minimum of 50,000 boxes. Another firm put the figure at 100,000 boxes. However, a popular item usually outsells that number and sometimes continues in the line year after year.

By 1944 and 1945 even the more conservative stationery houses and those who put out higher priced lines had recognized the importance of the use of colorful elegance as a selling tool for social stationery and its packaging.

The P. P. Kellogg & Co. introduced a collection of 12 designs in 1944–1945 called "Correspondence Ele-

6

6—Crane & Co. maintains that conservative styling must be keynote of their packaging. Redressed line has muted colors of cover paper for box bodies, brightened with white box tops, with redesigned "Crane" signature in script printed in color to match box body. The colors used are blue, gray, tan, pink, green and rose.

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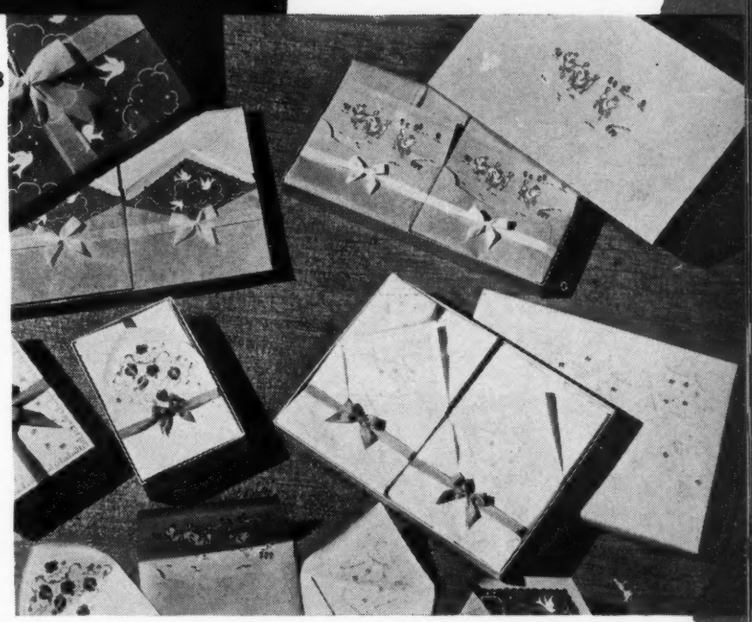

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7—Floral theme with birds decorates Kellogg's "Flowers of Friendship" box. Early American period scene on "Modes and Manners" paper is duplicated on box top. **8**—*Doves, parasols and French poodles give Victorian air of sentiment to this Kellogg line.*

gancies" done by one of the country's leading designers with a foreword in its brochure to buyers commenting on the line as follows: "The tangible recognition of a vital trend in taste allied with etiquette, proving that the 'correct' is not a synonym for the blankly conventional, but rather that to be beautifully distinguished in her choice of letter paper is a privilege your most critical customer may exercise with spirit and with ease."

The sheets of paper were left entirely plain, but with printed decorations lining the envelopes not only to serve the practical purpose of opacity, but adding to the handsome appearance when luxuriously boxed for gifts with the lining motifs adapted to box covers.

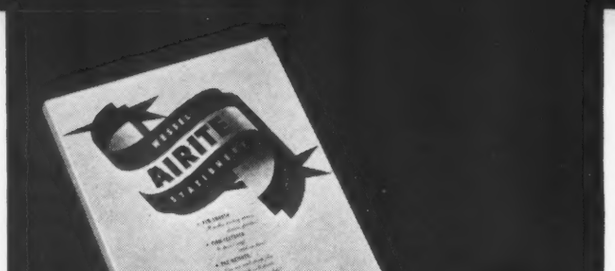
This Kellogg line was designed in three groups. One group for a "mood" of sentiment has a Victorian air with box cover and envelope liner depicting in soft feminine colors, doves and clouds, tilted parasols, gay little French poodles called "Chien du Mode" and hearts and flowers. The heart box called "Remember Me" was trimmed with a heart-shape cut-out in magenta felt tied with turquoise ribbon. The second group is designed for a mood of sophistication with such names as "Burnished Leaves" in a box covered with scattered leaf motifs in silver and brown on brown paper with fuchsia colored accents; "Aquatica" in a box covered with the same paper as is inside decorated with sea horse, waves, bubbles and starfish; "Chinese Floral," with box-top matching the blue and white envelope lining, but with added color interest in the form of flamingo pink flowers; "Largesse" a pale aqua-tinted box with a modern floral print framed in silver wreath embossed with floral motifs and bowknot to harmonize with the American beauty shade lining the envelopes. A mood of "Environment" was expressed in the third group: "Geranium Terrace," "Cherry Orchard," "Flowering Meadow" and "Marine Fantasy."

Last year's success was so overwhelming that Kellogg follows it with eight new numbers for 1946 executed in the same manner with boxes designed to match papers including design treatments called "Melange," with envelope linings tinted in "stick candy" colors; "Coq Piquant," with feathery cock and butterflies; "Fair Sails" with an all-over sailboat pattern; "Flowers of Friendship" with a detailed floral frame for the box top; "Modes and Manners," carrying an Early American scene, a miniature of which is on each envelope flap; "Gallopade" with a sculptured-looking engraved white horse for envelope decoration and for center of matching pink box top.

Many of the boxes are self-covered with the paper they contain and are produced by engraving, lithography, silk screen and letter press. Unusual feature is that each item is done only in one color scheme to harmonize with the box design.

Eaton Paper Corp. was also in the lead with packaged stationery that moved away from the strictly conventional. A year or so ago this company presented its "New Horizons," (MODERN PACKAGING, August 1945, p. 108) a lightweight paper in delicate colors designed for increasing use of airmail by feminine letter writers. The envelope flap motif symbolized the world floating in clouds. This motif was repeated in a stylized design for the box top.

This month Eaton introduces "Romantic America." The premise for the box design, "There's nothing more wonderful than America," was inspired by the happi-



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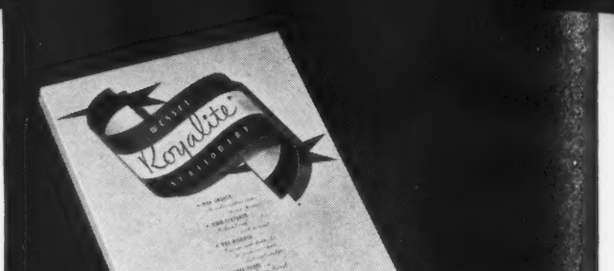

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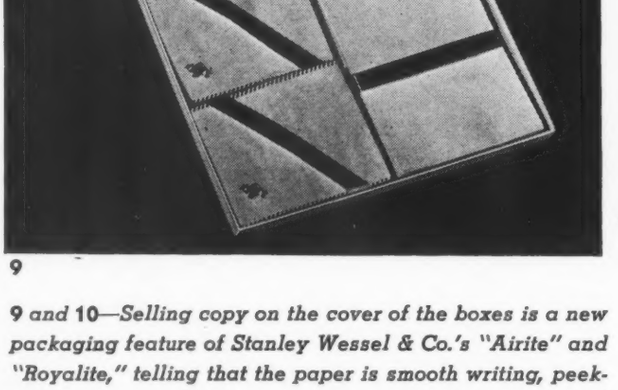
9** and **10**—Selling copy on the cover of the boxes is a new packaging feature of Stanley Wessel & Co.'s "Airite" and "Royalite," telling that the paper is smooth writing, peek-proof and pre-weighed; one stamp carries 7 sheets.* **11** *and* **12—Re-use features are pointed out by Park Square Mfg. Co. for their transparent acetate boxes with foil labels.*



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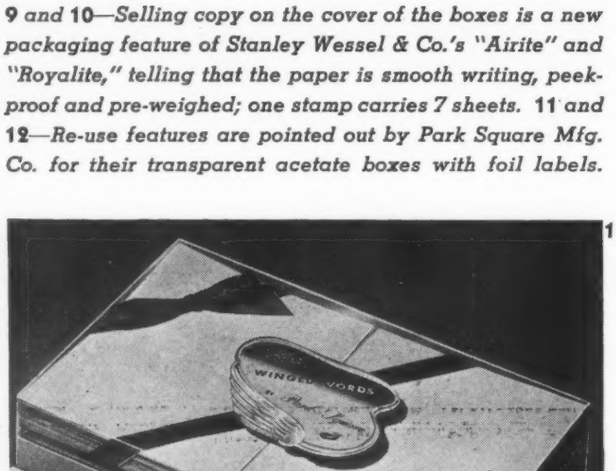

12

ness of millions of soldiers returning to their native land. Eaton has translated this into a color theme tying in with the paper representing the five great sections of the United States interpreted as follows: East, by the lighthouses and surf of the Atlantic coast; South, the plantation house; Midwest, the golden wheatfields; Southwest, the Grand canyon; Northwest, the snow-capped mountains. Vignettes of these five motifs in four colors appear on the box tops placed within soft faint outlines of a map of the United States. Box bodies are covered with dark or bright solid paper colors. In the case of the hinged box in the collection, the cover-lining picks up the color accent of the paper.

The larger boxes have panel frames inside, around the contents and on these the color name of the paper is die-stamped. The smaller boxes have color-name stamped on the box body. In the smaller items where the all-over size of the box top is too small to accommodate the entire map design, one vignette appears, tying in with the color of the paper the box contains. For example, the plantation scene appears on the small box containing "Spanish Moss Green" paper; the Grand Canyon contains paper called "Indian Clay," etc.

The series consists of 20 numbers divided into five groups, one for each color in four price fields. "Romantic America," taking its theme from the box covers, will be featured for the company's retail gift promotions and in four-color advertisements beginning November in leading fashion magazines.

Another interesting Eaton package promotion is the company's "Signature Series." Here the thought was to suggest superior quality—a made-to-order versus a ready-made fashion—to understate the box, if necessary, to give a "couturier" look that would throw all emphasis on the paper. Contents are designed in unusual colors with hand-brushed borders, distinctive sizes, with the count of sheets and envelopes, in each case, suitable for personalized engraving.

The couturier idea turned the designer's thoughts to textile labels used on women's fashions. The result is

a woven Eaton label for the box top and a companion woven band used on box contents.

As all papers in the "Signature Series" are identically packaged, the box had to be of a color that would be appropriate for all sizes. Since Eaton's had a white and silver package in their line, they decided on black flint and bronze for the "Signature Series." They liked the sleekness of the black flint paper, but did not like it pasted flat to the cardboard shell, so padding was added to the box top. A formal frame around the pasted-on, woven label looked too stiff, so they washed in a bronze background and affixed the gummed-back textile label with heat. Contents are tied with a woven band. The bronze box bodies are individually die-stamped with the title of the Eaton paper they contain so that customers will remember them for re-ordering.

Also in Eaton's current line are "Eaton's Reflections"—personality papers designed to fashion trends and users' personalities—colors for the young, the gentle, the subtle, the sophisticated, etc. Each represents a flower which is printed in a subtle way on the box. The colored envelope flap is tucked in at the bottom of the sheet and the edge ribbon tie holds both sheets and envelopes in position. Box tops are covered with a paper that duplicates envelope lining colors. This is die-stamped in color with the title "Eaton's Reflections."

The one bulwark against the trend toward decorated novelties in the stationery field is Crane & Co. The Crane trademark, this company believes, is its biggest asset. Good taste, correctness and conservative styling, they maintain, is the standard for their products and must be the keynote of their packaging.

This company has been making papers since the time of the American Revolution. Records in the company's museum in Dalton, Mass., show that Paul Revere engraved Continental currency upon it and the company is still making Government currency paper in its "Government Mill."

Crane was among the earliest companies to offer boxed writing papers, which were first packaged, it is thought, during the late '70s and early '80s.

With the removal of wartime restrictions, allowing the return of heavy weights of writing paper, however, Crane has redressed its line, using muted colors of cover paper for box bodies, brightened with white box tops, die-stamped with a redesigned, "Crane's," in color to match the box. White bands similarly stamped or white ribbons hold the paper and envelopes in place. Each of the basic papers carries its own color scheme selected to identify finish and line and also to enhance the writing paper color and texture. Colors for the box bottoms are blue, gray, tan, pink, green and rose. All papers are pyroxylin coated.

Other staple lines are boxed in navy blue, stamped in gold. In addition the company stocks in ivory flint boxes wedding stationery, open stationery paper and envelopes boxed separately, calling cards and envelopes, styled ream goods, book plates, place cards, dinner cards, cocktail invitations, acknowledgments, etc. Crane never uses any interior packaging, such as platforms or cardboard fillers, believing that no box should be bigger than required for contents.

A newcomer to the stationery field is Stanley Wessel & Co. This organization, a Chicago printing firm, started in the stationery business when they originated and printed the first forms for V-Mail.

Since that time, they have realized that there is a good market for red, white and blue airmail stationery better styled than previously for personal use. Red, white and blue stationery actually helps to expedite airmail at the post office and if the public realized this they would always demand airmail paper with red, white and blue decoration, this company believes. Their first venture in this field was Airite." For packaging they employed a leading (*Continued on page 170*)

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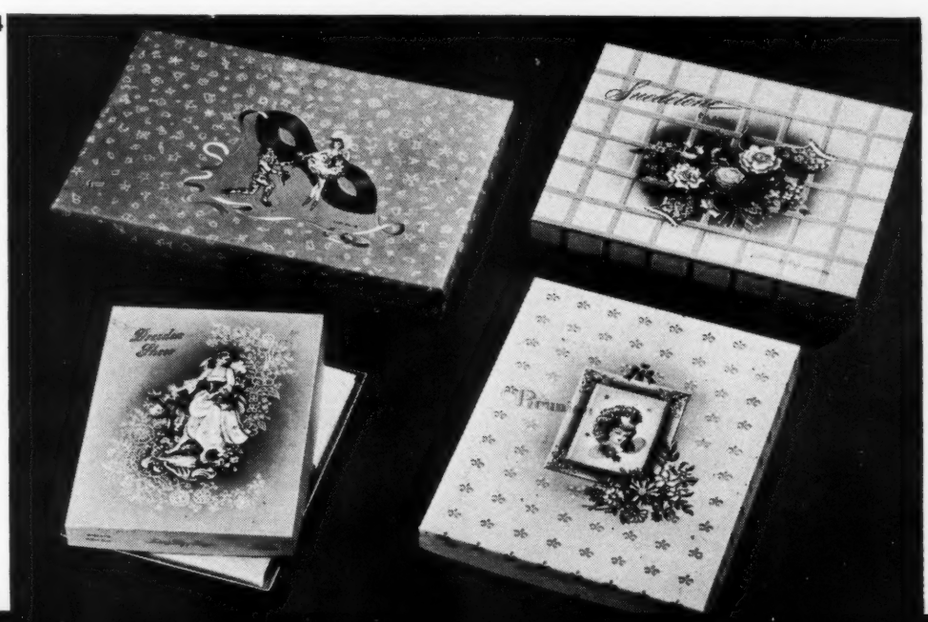


13 *and* **14**—*Full-color lithographed box wraps are being used for a collection of popular-priced items distributed by Joseph H. Katz & Co. Romantic themes are "Bal Masque," "Dresden Sheer," "Reunion," "Persian," etc., to complement writing papers.*

D D T with dispenser cap

Designed with a rubber dome and a plastic spout, the new SafeWay patented dispenser cap for 10% DDT insecticide powder dispenses a light coating of the powder wherever wanted by a mere touch of the finger.

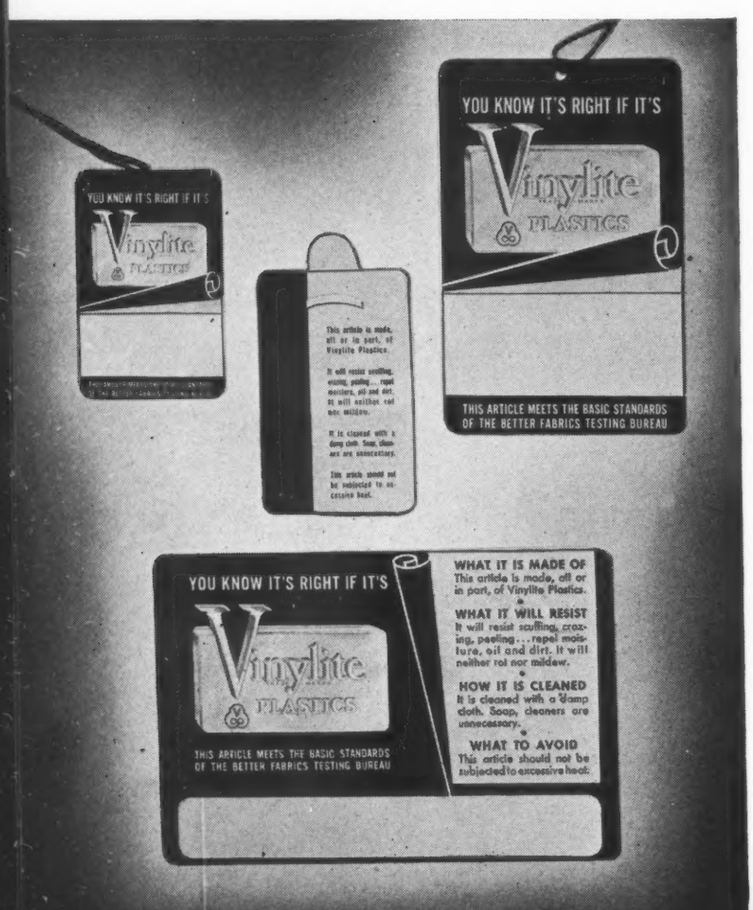
The underside of the molded rubber dome is covered with a crinoline screen through which the powder passes as it is drawn up by suction to the spout. This assembly is then slipped through a metal disc which is cut out to catch the lip of the dome. Another metal disc locks onto the underside of the first disc holding the dome in place. "Flexi-Cap" (trade name) appears in raised letters across the top of the dispenser along with the words "press here."

The entire assembly is then fastened to the top of a spiral-wound fibre can with metal end and the package is ready for the counter.

Along with other necessary information on the label there appears copy to advise the consumer of the convenience of this unusual applicator.

CREDITS: *Rubber cap, Sun Rubber Co., Barberton, Ohio. Fibre can Sefton Fibre Co., St. Louis, Mo.*

DESIGN


YOU KNOW IT'S RIGHT IF IT'S
Vinylite
PLASTICS
THIS ARTICLE MEETS THE BASIC STANDARDS OF THE BETTER FABRICS TESTING BUREAU
WHAT IT IS MADE OF
This article is made, all or in part, of Vinylite Plastics.
WHAT IT WILL RESIST
It will resist scuffing, crazing, peeling... repel moisture, oil and dirt. It will neither rot nor mildew.
HOW IT IS CLEANED
It is cleaned with a damp cloth. Soap, cleaners are unnecessary.
WHAT TO AVOID
This article should not be subjected to excessive heat.

New label family

New plastic products necessitate new ways of acquainting the consuming public with new synthetic materials, new trade names, uses and care of such products. From a packaging standpoint, this means a careful job of informative labeling. Soon on the market will be a complete new family of labels and tags for Vinylite plastics, made by the Bakelite Corp. and fabricated into raincoats, shoes, wallets, purses, shower curtains and many other items.

The labels introduce an identifying trademark for all products made of this material. On each label and tag, either front or back, is printed essential information telling what the product is made of, what it will resist, such as moisture, oil, dirt, scuffing, crazing, peeling, mildew, etc. Cleaning directions are given and the user is warned not to subject the Vinylite article to excessive heat. Also included is the company's assurance that the product meets basic standards of the Better Fabrics Testing Bureau. In two shades of blue, it has space for fabricator's name.

CREDIT: *Labels and tags, Robinson Tag & Label Co., New York.*

(*Page 118*)

Accordian box

Old Chinese pewter bottles, hinged together, were the inspiration for this package for Mary Chess' bath preparations.

Three bases of the conventional telescope box are fastened together by means of an ingenious application of the box-cover paper. The paper, an exceptionally heavy, coated stock, is zigzagged from box to box so that at each joining two thicknesses form a hinge. Since one common box cover is used, there is a considerable saving of boxboard over three individual packages.

In addition, the unit encourages sales of all three products together; takes up little stacking space on shelves and lends itself to many variations in display. The consumer, also, can make use of the accordian box. On the bathroom shelf it can be kept in the closed position and opened out to its full length for easy identification during use.

CREDITS: *Design, Jon Stengren, N. Y. Bottles, Swindell Bros., Baltimore, Md. Caps, Coll's Patent Fire Arms Mfg. Co., Hartford, Conn. Boxes, Warner Bros. Co., Bridgeport, Conn. Labels, H. P. Bender, The Palographia Co., N. Y.*

HISTORIES

Individualized coffee

Small heat-sealed packets are used by the Baker Importing Co. to package individual servings of Barrington Hall Instant Coffee. These packets are made of a material similar to that used for lemon powder in the Army's Ration K pack—a lamination consisting, from the outside in, of acetate film, metal foil and vinyl coating.

Sealed on all four sides, the packets keep the coffee in roaster-fresh condition until ready for the cup. The powder in each is just enough for one cup of coffee with the addition of boiling water.

Five individual servings are packaged in a small folding carton and twelve of these cartons make up a unit for retail counter display use.

The laminated material is supplied in a roll with the label information printed in red and white. At least one full label appears on each packet no matter where the material is cut. The red and white printing is carried out on both the small carton as well as the display unit.

CREDITS: *Laminated material, Metalam, The Dobeckmun Co., Cleveland, Ohio. Cartons, American Coating Mills, Elkhart, Ind.*

(*Page 119*)

Carborundum . . . one name for the family

The abrasive manufacturer makes products which sharpen all kinds of dull tools and make smooth all manner of rough places. These jobs require an infinite number and variety of shapes of hones, grinding wheels, sanding and finishing cloths and papers.

In the course of its many years of existence, the Carborundum Co. has developed a complete line of abrasives. With the addition of items to the line, there grew up a more or less haphazard collection of brand names, trade marks and product designations which appeared on a variety of labels and packages. As in many instances where a product line develops to meet the needs of a broad field, the idea of a unified labeling and identity system came along later.

Adequate protection to meet the hazards in the various fields of activity where their products are used has always been achieved by Carborundum's packaging; and from the standpoint of external design, too, their packages have always compared favorably with others in the field. But recently, in the spirit of discontent which characterizes any progressive management, it was decided to unify, simplify and standardize the system for identifying and specifying "products by Carborundum" by means of the packages and labels.

Many a manufacturing firm with an old and respected name finds itself with a heterogeneous assortment of packages and brand names which has grown through the years as new products were added. The Carborundum Co. met this problem by adopting a uniform family package design, with all brand names subordinated to the company name.

In order to make sure that every detail, however unimportant it might appear, would receive full consideration, the management formed certain committees to study the problem. The various viewpoints were coordinated by the company's director of merchandising.

Activity began with a study of the broad groups of products comprising the line. These groups include, among others, coated abrasives, industrial grinding wheels and honing and sharpening stones for many purposes. Part of the line is distributed through regular mill supply distributors, hardware jobbers, automotive jobbers and retail hardware channels, and part of it through industrial channels. In either case, the same needs would apply.

Each one of Carborundum's product groups, from the standpoint of the users, is susceptible of further breakdown. Coated abrasives, for instance, are made for metal working, woodworking, floor sanding, shoe and leather manufacture and repair, as well as a broad list of general users and week-end tinkerers. Grinding wheels range from the tiny "mounted wheels," a fraction of an inch in size, used for precision work by engravers, jewelers and opticians, to large abrasive disks several feet in diameter. Tool-room wheels fabricate and sharpen lathe and planer tools, milling cutters and reamers of every description. Sharpening stones are made for industrial users and also for butchers, barbers, carpenters, farmers and householders.

The use to which any of these products is put is, of course, the factor which determines size, shape, kind

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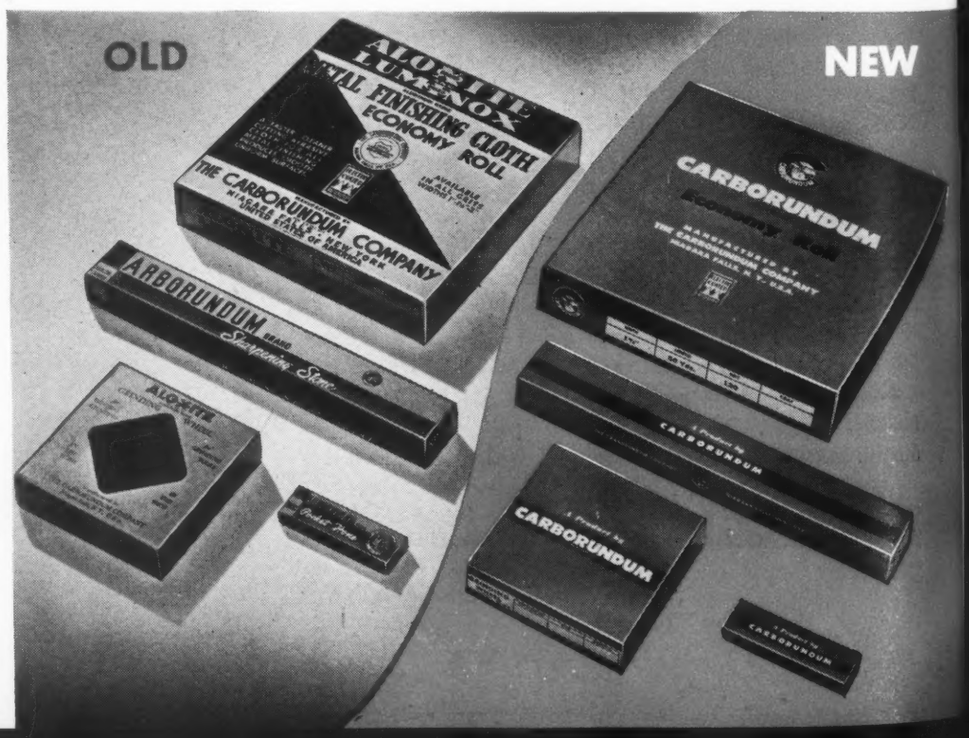

1—*Variety of Carborundum packages and products, for both consumer and industrial use, is brought under new uniform package design. All other trade names are dropped in favor of "Carborundum." These are folding cartons.*

of abrasive and other functional points. Careful study of the identification problem convinced the committee that the ultimate customer thinks of these products in terms of the end use. Hence, one of the first principles adopted guided the selection of product names from the functional viewpoint.

In the woodworking industry, for instance, a coated abrasive product used in the cabinet room would be best identified and remembered as "cabinet paper." A product used to fabricate belts could be readily identified as "belt paper," and the term "finishing paper" identifies a product used in a finishing operation in the wood-working field. "Floor paper," naturally enough, designates a product used in floor sanding, while "industrial cloth" and "metal cloth" indicate those used in metal-working plants.

These functional product designations, gratifyingly enough, are susceptible of convenient, easy and unmistakable abbreviation; and these abbreviations have been quickly adopted internally and externally for use in writing orders. For example:

IND CLOTH is translated "Industrial Cloth"
CAB PAPER is translated "Cabinet Paper"
TYM PAPER is translated "Tympan Paper"
POUNC PAPER is translated "Pouncing Paper"
MLD CLOTH becomes "Moulding Cloth"
GAR designates a "Garnet abrasive," etc., etc.

This system of simplified terminology—believed to be original with the Carborundum Co.—has proved very popular with the trade. Coupled with the simplified family designs, the "end use" names have made it much easier for users and distributors of abrasives to identify and specify the correct product.

Brand names and trade marks required some very careful thinking. Like a great many well-established concerns, the Carborundum Co. found itself in possession of a number of brand names which had come to have a very definite signification internally. Any change in brand names would involve teaching a new terminology to employees, and consequently such changes should be made only as a result of careful planning and cogent reasons.

The reasons were not far to seek, once they had adopted the principle of designating products by end use from the consumer point of view. Tricky trade names, they concluded are hard to remember; and, in many instances where several trade names were combined, the difficulty of identification was further compounded. For example, a designation "Carborundum Brand Niagara Flexbac Floorcraft Rolls"—an actual product name in the line—couldn't fail to produce confusion in the customer's mind, and probably—if the truth were known—in the minds of some of the Carborundum folks, too.

They found plenty of such instances, rather to their dismay. Examples: "Aloxite Brand Electrocoated 'K5R' Combination"; "Carborundum Brand Silicon

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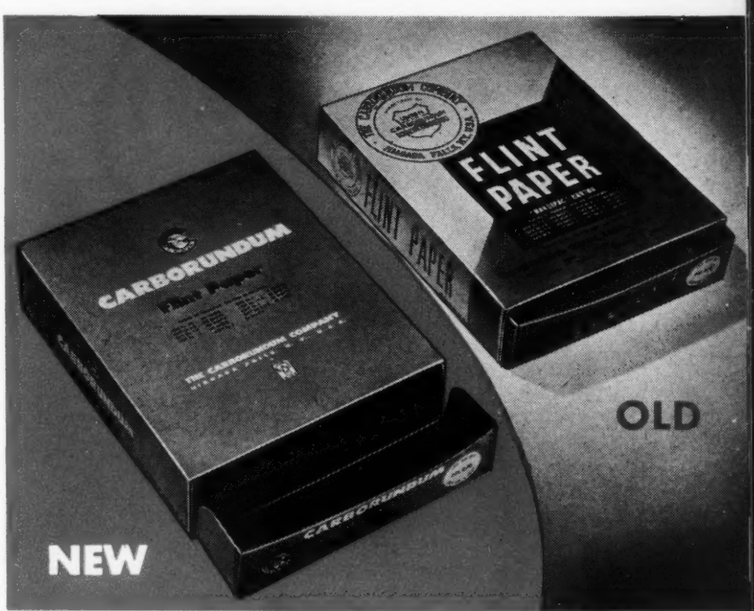

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2—New container for flint paper, like its predecessor, is a "Handipac" metal-edge box which makes a convenient storage place for consumer or industrial use. But note the clean-up of the design and emphasis on brand name.

3—Group of set-up boxes for various types of sharpening stones and mounted wheels, contrasting old with new.

4

4—The old package for mounted wheels was a set-up box with a built-in scored platform. **5**—*The new boxes for mounted wheels, same capacity as old, make use of little folding boxes for interior packing instead of built-in platforms.*

5

6

Carbide Flexbac Floor Abrasive Floorcraft Rolls." Even the most reactionary and tradition-bound members of any organization would admit that here was a condition which called for some slight modification.

All members of the committee, however, came easily to the conclusion that the word "CARBORUNDUM" is the company's most widely recognized and popularly accepted trade mark. In the minds of consumers in all fields, that brand name stands unmistakably for any and all products manufactured by the company. It identifies both product brand and source of supply. Coupled with the principle of product use, this single brand name is adequate for all purposes of labeling, except the specifications of size, grit, backing, etc.

It was recognized that there should be a definite sequence of markings on all packages for both identification and specifications. In the case of the coated abrasives, it was considered to be important also for the backing of the sheet to carry full identity, in addition to the markings on the labels and packages. The workman must be able to specify the same abrasive sheet to assure the same results. But the package and the label are thrown away when the product is put into use. If the backing is marked with the trade mark, product use name, grit size and substance and nature of backing material, it becomes a very simple matter to re-order the same identical product.

With one interesting exception, the new packaging plan called for little in the way of structural change.

6—*Old labels for coated abrasives were informative enough, but the collection grew up using many confusing brand names and with little design relationship. With new labels, all members of Carborundum family use product name indicative of end use, give information quickly.*

Principal forms used were set-up boxes, folding boxes, metal edge boxes and paper labels. For the most part, sizes and constructions were left as they were because the protection factor had been adequately cared for.

The exception was a change made in the interest of Carborundum's own convenience in the actual packing operation of mounted wheels. The outer container for both the old and the new package is a set-up box, and these mounted wheels are packed in lots of 15, 30 or 180 with outer containers of appropriate size. Inside the old container was a glued-in platform with punched holes for holding the mounted wheels so they would not be damaged in transit by rubbing against each other. In the new container, instead of this glued-in platform, folding boxes which fit into the base of the set-up box are used. These folding boxes have the same number of punched holes as the platforms in the old containers. The new outer containers are the same size as the old; they hold 1, 2 or 12 of the small folding boxes. This makes it possible for the operators on the packing line to concentrate on one unit of pack for the mounted wheels; then these smaller folding boxes are put into the proper outer set-up box, depending on the order.

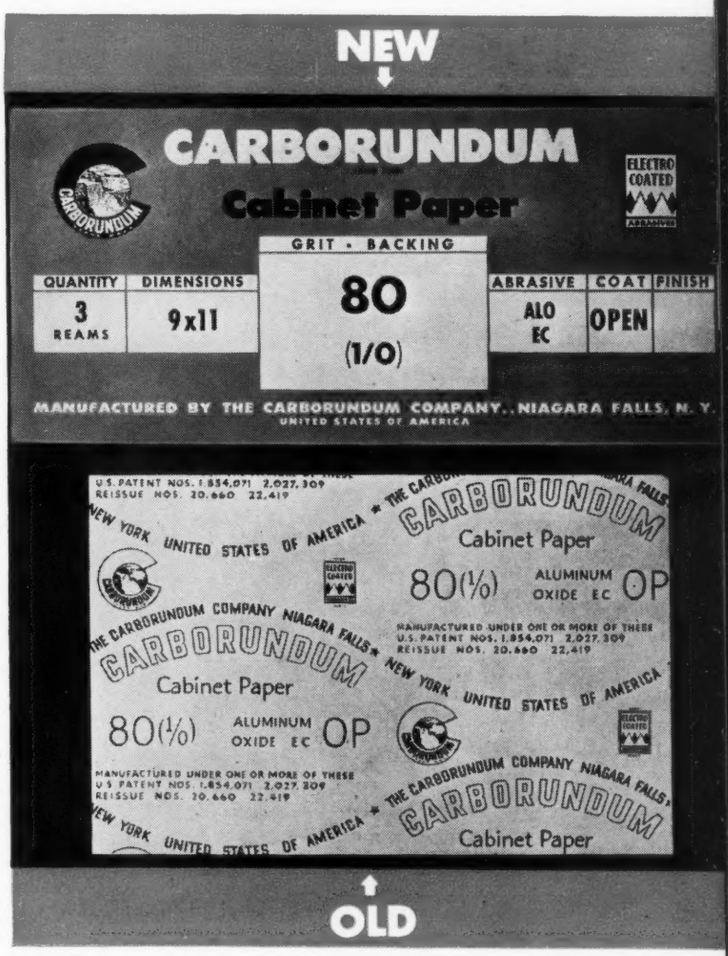
In the matter of external design, the Carborundum Co. had had comparatively little unification in its packaging plan. The various products, for all the packages might indicate, could have come from as many different manufacturers. A New York designer, widely known for his merchandising soundness as well as his artistic ability, was commissioned to handle the problem of design unification. His work resulted in a series of cartons uniform in color scheme, treatment of brand names and trade marks, and—best of all—uniform in treatment of specification information. The old cartons and labels, taken individually, were interesting enough to stand out in retailer's store or manufacturer's shop. The new line has bright coloring and individuality, but each package is unmistakably a member of the extensive line by "Carborundum."

The new packaging procedure had an important by-product that was not entirely anticipated. Packaging operations in the Carborundum factory have been greatly simplified. The number of packaging units required has been reduced materially. It was found, for instance, that it was only necessary under the new plan to buy and stock approximately 60 labels as compared with something like 150 needed under the old plan. By abolishing a long list of traditional trade names and substituting a few simple "end use" terms, the number of stock designs has been greatly reduced.

CREDITS: *Design program developed by Egmont Arens, New York. Labels by F. M. Howell & Co., Elmira, N. Y., and Baker-Jones-Hausauer, Buffalo, N. Y.; folding cartons by Corson Mfg. Co., Lockport, N. Y., and F. M. Howell & Co.; set-up boxes by Warder Paper Box Co., Niagara Falls, N. Y.; wrappers and bands by Wahl Printing & Binding Co., Niagara Falls, N. Y.; metal edging and metal-edging machinery by National Metal Edge Box Co., Philadelphia; metal pulls for flint box by Scovill Mfg. Co., Waterbury, Conn.; labelers by Better Packages, Inc., Shelton, Conn.; imprinting machinery by Markem Machine Co., Keene, N. H.; banding machine by Package Machinery Co., Springfield, Mass.*

7—*New labels on the line of grinding wheels are uniform and consistent with the new packaging plan in design, colors and method of giving clear information quickly.*

8—*New backing of coated abrasive carries definite information and specifications corresponding with label, making it easy to re-order if package has been discarded.*



G-E lamp cartons

. . . redesigned to provide dealers with a better merchandising tool

1

The importance of packaging to retailers was demonstrated to General Electric Co.'s Lamp Department when it was discovered that 75% of their dealers, excluding leading variety and chain stores, displayed light bulbs in their identifying cartons and sleeves as part of their standard merchandising procedure.

This information obtained in a nation-wide survey of lamp agents convinced the company that a revision in its lamp package was definitely in order if it gave dealers a better merchandising tool.

The outcome is a completely revised lamp package design, the first full-line package change announced by the G-E Lamp Department since 1939. Both cartons and sleeves have been redesigned to help dealers do an even better job of displaying and selling G-E lamps.

The company felt that this was a good time to review its lamp package design with a view toward improving it. The rapid move from a wartime to a peacetime economy has led the public to expect changes. Moreover, the present demand for light bulbs has depleted dealers' stocks to such an extent that a change in package design could be made at this time with less inconvenience to dealers.

On the other hand, the conventional G-E lamp package was so well known to lamp users that the significance of any change in its design could hardly be over-emphasized. Every year, literally hundreds of millions of cartons and sleeves escort G-E light bulbs into homes, stores, offices and factories all over the country. And over a period of years, they play their part in billions of G-E lamp sales.

Instead of completely discarding the old-type carton, G-E decided to revise and improve it in line with present day trends. With a theme suggested by an independent package designer, G-E merchandising experts cooperated to develop a design that would enable dealers to tie in more effectively with the tremendous consumer acceptance and preference light bulbs carrying the G-E marking have always possessed. The result was the new design—more attractive, more flexible and more easily identified.

Greatly increased use of color is probably its most apparent change. Traditional G-E lamp colors of blue and yellow-orange are employed more extensively to produce a package that will facilitate livelier, more effective lamp displays.

The approval of prominent variety and chain store merchandising experts strengthened G-E's resolve to continue to emphasize the same G-E colors on lamp cartons and carry them over into other display materials. These experts maintain that the public's familiarity

(*Page 124*)

1—Traditional G-E Lamp colors—blue and yellow-orange—are employed over greater area for more extensive display. Color guide card supplied by the company assures uniformity for all printings. **2**—*Cartons and sleeves carry the same design. Comparison between old (left) and new cartons shows the increase in recognition value.*

2

with these colors, as identified with G-E lamps, is a highly desirable sales aid.

Dealers heartily approve of the completely colored design, it is reported. Among its advantages, they have found that it resists soil better than a predominantly white design and therefore retains its fresh appearance longer.

The continuance of the distinctive blue and yellow-orange colors makes the new packages suitable for use with the same display material that was supplied for the old packages. If it had necessitated the replacement of the many display aids already in the hands of tens of thousands of dealers, the change in package design would have been much more expensive—in both time and money.

Dominating the top half of the incandescent lamp carton is a conspicious G-E monogram. A leading independent research organization, which has been carrying on a continuous survey to determine the recognition value of manufacturers' trademarks, places the G-E monogram at the top of its list—recognized by approximately 85% of the buying public, the company reports. Naturally, G-E is relying on this asset to identify itself to lamp users.

Because so many dealers merchandise lamps in their cartons, many of the revised designs display a picture of the particular type of lamp packages in each carton and sleeve. In specialized instances, where a picture is inadequate for describing its use, the lamp is further identified by its name, printed across the face of the carton.

To make it easier for purchasers to select the proper light bulb, the factory continues to stamp size, type and voltage information on the standard cartons which hold six incandescent lamps. Thus the purchaser need not refer to the lamp itself for this information.

Following the same layout pattern, fluorescent sleeves portray a fluorescent tube pictured against a blue background. There is a wide, yellow band around the package and the G-E signature is prominently displayed. Since it is difficult to distinguish the color of an unlighted tube, one side of the new fluorescent sleeve carries the lamp's correct color designation.

The familiar corrugated construction is used for the revised packages. Over a period of years it has demonstrated its ability to protect the glass bulbs against shipping and handling abuse.

Though no attempt is made to design a package that will do the entire job of sell- (*Continued on page 176*)

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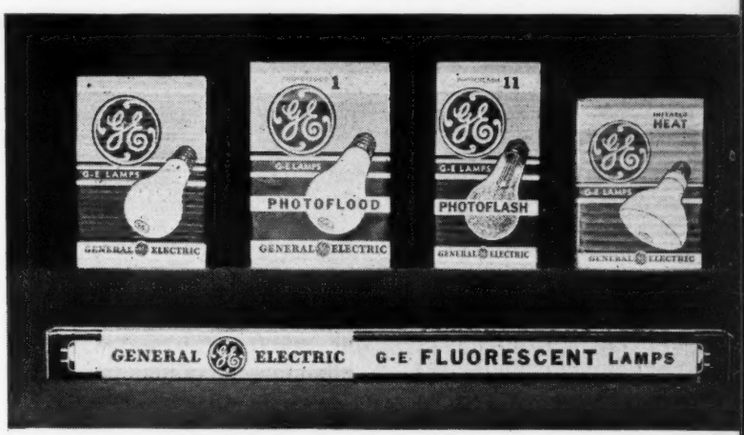

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3—*New design is used on packages for all types of lamps, with identifying pictures and labeling for each type.* **4**—*Cartons from left to right illustrate steps in revision from old to new incorporating suggestions from company's merchandising experts.* **5**—*Hold this picture at arm's length and note how quickly lamp bulbs and G-E are identified in display. Illustration on carton gives good third-dimensional effect.*

(*Page 125*)

2

5

Packaging

1 A single sheet of flocked paperboard is die-cut to form this velour-like hinge-lid container for the Royal watch band manufactured by the Royal Mfg. Co. of Hollywood. The name on the box cover appears to be embossed. This is accomplished by building up the make-ready form so that a heavy impression is made in the flocked paperboard.

2 Raybestos Division of Raybestos-Manhattan, Inc., has introduced a new PG Box used to package brake linings. The red and blue used in the company's advertising is used on the box and a window is cut in one end behind which a printed card is inserted to give the set number and other information essential to the buyer. The box is fibreboard with a gloss finish to withstand shipping hazards. Box, Compressed Paper Box Corp., Bridgeport, Conn.

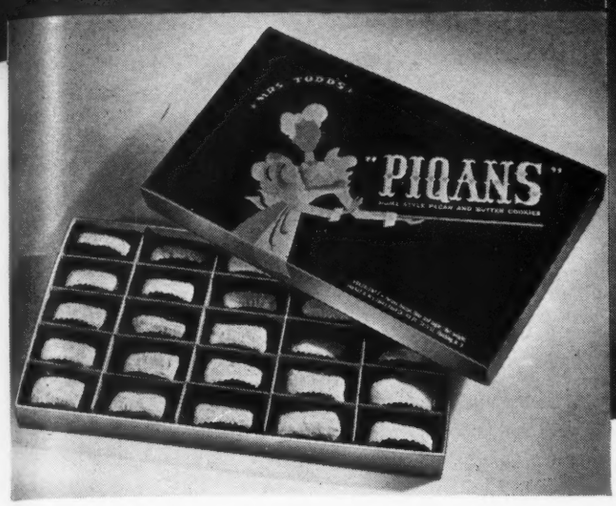
3

3 Pond's Dreamflower dusting powder and talc are newly packaged with matching pattern—a pastel-flowered background banded in pale blue-green, lettered in gold. The talc package features a metal base and top with a swivel plastic sifter in Pond's familiar blue-green. Both the talc and powder are combined in a merchandising pack.

4

4 Heavily-waxed paperboard is die-cut and scored to form this scotch-plaid printed container for McLellan's Scotch Heather, shipped from California bush-fresh. The carton was created not only to improve the merchandising possibilities of the product, but to facilitate handling and shipping. The packaging eliminates crushing which caused much loss before. Carton, Fleishacker Paper Box Co., San Francisco.

5 The Perm-Aseptic Process Co., Mount Vernon, N. Y., is about to launch its antibacterial and antifungal chemical for home use. Previously used only in industry, the product adapted for a home chemical presented a label problem of using as much directions-for-use copy as possible without cluttering up the label too much. Label, Reklam Printing Co., 270 Lafayette St., New York.



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Pageant

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6 Mrs. Todd's Food Co., Flushing, N. Y., packages 25 "Piqans," a pecan-filled confection, each in its own red glassine cup, tops the whole with a snowy white pad and boxes the candy in a tan set-up box decorated with a pink and white stylized drawing of a puff-sleeved mother of the '90's. Designer, Don Couper, New York. Boxes, Shoup-Owens, Inc., Hoboken, N. J. Cups, partitions, pads, Bleyco Paper Co., N. Y. Wraps, Llenroc Press, Inc., N. Y.

7 A porcelain and metal container which hangs on any closet hook, a circular fibre can of refills and an electric cord are combined in a red and blue set-up box to make up a new electrical device for moth eliminating called the Apex Electric Moth Fumigator. For added protection plus display value, Clean Home Products, Inc., has provided a transparent acetate cover. Package, W. C. Ritchie & Co., Chicago.

8 That useful picnic accessory, the long-handled fork, now comes packaged in a Camper's Aid Kit containing a pair of forks and a holder to drive into the ground. V. E. Sprouse Co., Inc., uses a folding carton printed in red, blue and yellow. The package carries directions for use printed in clear type. Carton, Paper Package Co., Indianapolis.

9 A circular telescope box is used for Chen Yu's latest nail accessory set called "Sunburst." The motif of the design which appears on the box is repeated on the base by means of a cutout to resemble the sun's rays. Brilliance is achieved by laminating metal foil to paperboard.

10 An acrylic cap ornamented with a striking geometric design has been adopted by the Mayo-Reese Co., Chicago, for Junior Guild Cologne. The material is not affected by the cologne and the manufacturer claims that sales have doubled since its adoption. Material, Lucite, E. I. du Pont de Nemours & Co., Inc., Wilmington, Del. Fabricator, Oscar Lee Co., Chicago.

Packaging Pageant

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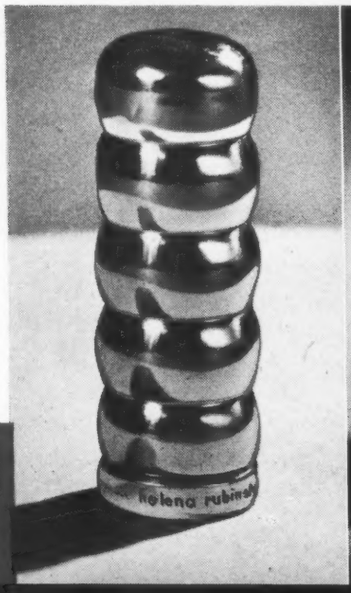

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11 A brilliant yellow, waterproof wrap with the name Red Streak printed on it in fiery red has been adopted by The Brown-Bridge Mills, Inc., for its well-known brand of sealing tape. When the bundle is wrapped, the print spirals around in a candy-stripe effect. The wrap is then folded over the ends of the bundle and secured with discs of yellow gummed kraft printed in red and black. These end labels carry the identification of the contents. Wrap, Thilmany Pulp & Paper Co., Kaukuna, Wis.

12 Yardley announced the introduction of two new men's gift sets in time for Father's Day. Hinge-lid, set-up boxes hold the cosmetics. Interesting packaging news in the items themselves is the all-aluminum container with a brass top for the talc. Boxes, Imperial Paper Box Co., Brooklyn, N. Y., and Kiernan-Hughes Co., Jersey City, N. J. Aluminum container, Bridgeport Metal Goods Mfg. Co., Bridgeport, Conn. Caps, Colt's Patent Fire Arms Mfg. Co., Hartford, Conn. Outside box cover, Louis Dejonge & Co., New York. Inside box cover, Lachman-Novasel Paper Co., New York.

13 The new Charms candy package (right) was designed to increase display effectiveness and emphasize trade-name. The white background contrasts sharply with the fruit colors and the name Charms is centered in bold lettering, in much larger type. Design, Alan Berni, New York.

14 Helena Rubinstein's Wedding Ring lipstick makes its first appearance since the war in a chunky gold-colored metal case. The design gives the appearance of being fashioned from thick old-fashioned wedding rings and is of the familiar swivel construction.

15 A carton with printing directly on the white stock has been adopted by Kemo Products Co. of Providence, R. I., to package Dove—a new washing powder. Shades of

blue-green are used as the background for the white dove and other copy which puts across the sales message. Carton Green Bros., Inc., East Providence, R. I.

16 A cut-out figure of a little girl sitting on the piano bench with her arms extended to play is the interesting feature of this new display package for Ideal toy plastic pianos. No additional paperboard is needed for the figure since the platform of the box is die-cut and printed with the figure all in one operation. Design, Irving H. Glick, New York. Lithography, Lutz & Sheinkman, New York.

17 Completely transparent acetate boxes with new snap-in inner lids have been adopted by Harriet Hubbard Ayer for Golden Hour face and bath powder. The lids which can be replaced with a simple pressure are deep-drawn on automatic equipment. An advantage of the completely transparent box is that the customer can choose powder shades more easily. Acetate, Lumarith, Celanese Plastics Corp., N. Y. Design, Design Center of Flushing, Flushing,N. Y.

18 "Folvite"—a vitamin product used in the treatment of certain forms of anemia—presented a problem of protection from breakage for Lederle Laboratories, the manufacturers. The solution can be seen here in the form of a small glass vial which can be filled on a semi-automatic tablet-filling machine. Since the product does not need protection from moisture a simple cork closure suffices. The unit is then outer packed in a set-up fibreboard box with die cut platform to hold the bottle. Vials, C. A. Moser, Conshohocken, Pa. Labels, Whitlock Press, Middletown, N. Y.

19 A small molded pulp bowl holds chemicals and seeds to which only water need be added to have a growing plant. The pulp is treated to make it waterproof and the unit, assembled by Howard H. Dunk, New York, and called "Gro-Wel" is shipped with a printed paper cover fastened over the top to prevent the contents from spilling.

20 General Foods' Jell-O Pudding packages have received an over-all streamlining and modernization treatment. Retaining the important Jell-O trademark, the most obvious change is the switch from a horizontal to a vertical design so that fewer packages will appear on shelves with side panels out. Color identification is achieved with a different color band for each flavor. Design, Frank Gianninoto and Associates, N. Y.

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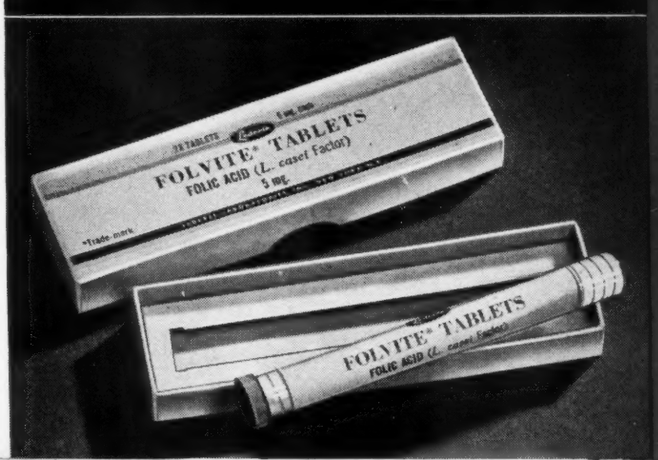

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Folded plastic boxes . . . *die-cut like cartons, set up without cement*

New plastic boxes are being made from rigid cellulose acetate and vinyl sheeting, die cut like cartons and folded with heat, but formed without cement or solvent of any kind. This new development in the field of plastic packaging should have many uses in the decorative packaging field, particularly where an interesting container with re-use appeal is demanded.

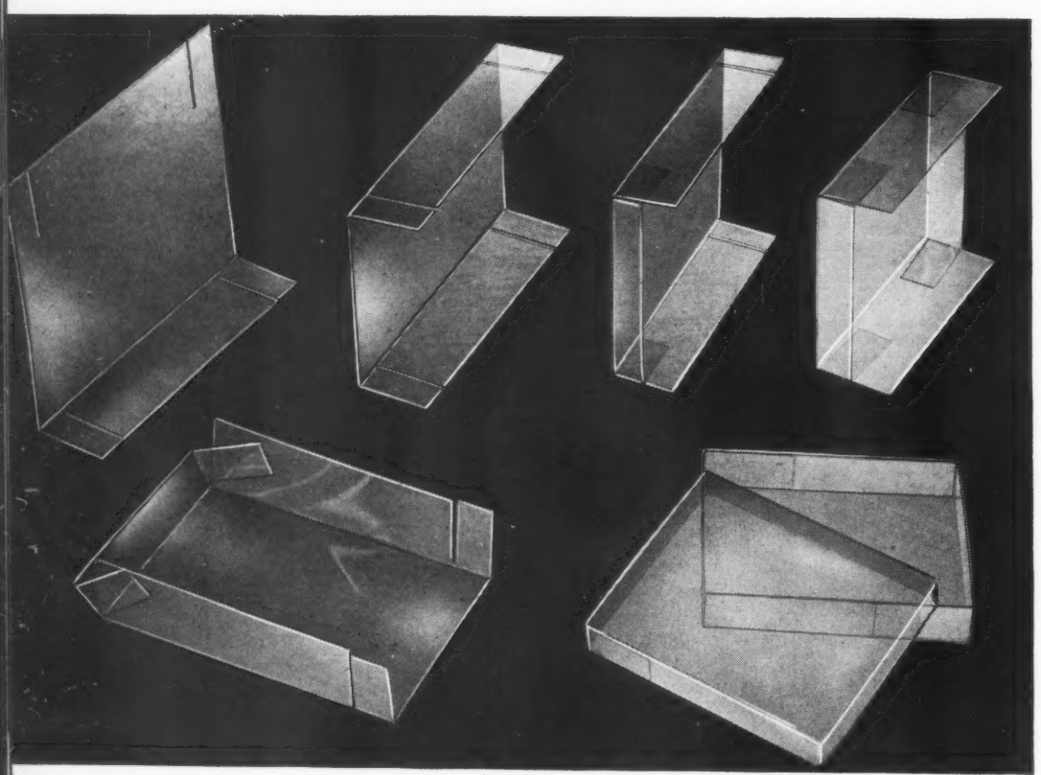
The boxes are formed on specially designed equipment and are provided with solid corners, reinforced sides and ends if desired.

The boxes may be made in a variety of sizes ranging from small jewelry boxes for rings to containers large enough to hold a blanket.

Gauges of sheeting employed in fabricating the boxes may range from 0.0075 to 0.040, depending upon the degree of rigidity demanded for the size box used or the product that it is to contain. Material of 0.015-gauge, however, is recommended for most applications.

Colors are limited only by the hues in which the plastic sheetings themselves may be produced. Selection is also augmented by combining one color, either opaque or transparent, with another. A clear transparent lid, for example, may be combined with an opaque red base or vice versa. Or base and lid may both be transparent or of the same color material.

The wide variation of color effects and degrees of



***1**—Boxes may be opaque or transparent and colors are limited only by hues in which plastic sheetings are produced. **2**—Fabrication begins with stamping out knife-thin slots from the sheeting. Position of slots determines size of box, reinforced side and end constructions. As sheet enters machine it is heated along lines to be folded.*

3—*The boxes may be made in sizes suitable for jewelry or big enough to hold a blanket. Gauges may range from 0.0075 to 0.040, depending upon the degree of rigidity demanded for size of box used and for the kind of product that is to be packaged.*

rigidity obtainable make this method of forming boxes adaptable to many requirements, providing, of course, the product to be packaged justifies the cost. Containers such as this cannot be made at a cost comparable to a paper box, yet are within reach costwise for specialized purposes.

Forming the boxes

The fabricating process begins with the stamping out, by means of a metal die, of almost knife-edge thin slots from cellulose acetate or vinyl sheeting. The position of these slots determines the size of the finished box and the reinforced construction of sides or ends as desired. A box bottom, 5 in. deep, for example (Fig. 2), that has reinforced sides but no reinforcement on the ends is prepared in this manner. Four slots, 10 in. long and positioned 5 in. in from the ends of the sheet, are cut from the material. The slot in this case must be 10 in. long to permit a double fold for the sides which give them two thicknesses of sheet. Since the ends do not have this extra support, there need be only enough material to make the 5 in. depth. Such blanks can be slotted at the rate of 600 per hour.

Similarly a 4-in. deep box would be slotted 4 in. in from the ends and the slot would be 8 in. deep. Should double folds be needed for both sides and ends, then slots for both sides and ends should be made twice the dimensions of the depth of the box.

After blanks are die cut, the slotted sheets are fed into an automatic forming machine which contains a knife-edge heater. With this equipment it is not necessary to heat the entire sheet of plastic for shaping the folds. As the sheet enters the machine it is heated only along the lines where the material must be folded to form the sides as shown in the second position from left in Fig. 2. After sides are turned up, the material is again heated along the lines of the crease for the box ends. The second folds on the two sides, which give the box the double reinforcement at these points, are heated and bent over, one at a time.

While the bottom of the box is being formed, it is common practice to use another of the bench-type automatic formers to turn out matching lids. In this way box and lid can be matched up as production proceeds and there is no massing up of box bottoms until the equipment can be readjusted for the production of the lids.

The boxes may be designed to carry a sales message or a decorative pattern. Sometimes this is done before folding, sometimes after. Silk screening is sometimes employed to create the desired effects but hot stamping is also feasible.

These boxes have been suggested to dress up many products as gift items in a colorful or transparent container for which the recipient will find many re-uses. The boxes can be used for candy. A thin square box makes an ideal container for handkerchiefs; a deep rectangular box, for stationery. With proper interior fittings, the small boxes offer an attractive setting for rings and other jewelry. With a die-cut platform of paperboard inside a colored opaque base, the boxes may be designed to house combinations of cosmetics and toiletries items. Visibility for the products may be maintained by use of a transparent cover, if preferable.

CREDIT: *Plastic boxes by John H. Oxley Co., Watertown, Mass.*

1 2 3

1—First step in the pine-log-to-paper-bag process: pulpwood bolts move up the inclined conveyor trough to elevated barking drums, preparatory to being cut into chips and made into pulp. **2**—*Peeled logs are poured from the revolving metal barking drums onto a conveyor which transports them to the chipper.*

The paper bag . . . an old container keeps pace

Nobody knows who invented the paper bag. At one time people didn't have any paper bags in which to carry home the family meat and groceries. Then all of a sudden they did—back in the middle of the last century.

The forgotten genius to whom today's grocers and housewives would gladly erect statues, apparently did his good work and vanished, unknown, unthanked, into the limbo.

This man would be amazed to see how his invention has developed. He wouldn't believe that one day paper bags would be moisture-resistant, greaseproof, hold a hundred pounds of hot chemicals, and protect their contents from immersion in salt water, as in the war when hundreds of thousands of items for the Armed Forces were shipped in paper bags.

But while this simple genius must pass unnamed, his idea was quick to spread. Grocers and seed merchants in the 1840's tried and found the paper bag good. It was the simplest and most efficient way of packaging the loose products they sold—beans, flour, sugar, coffee and potatoes—in a time when these commodities came in bulk, and were not prepackaged as they generally are today.

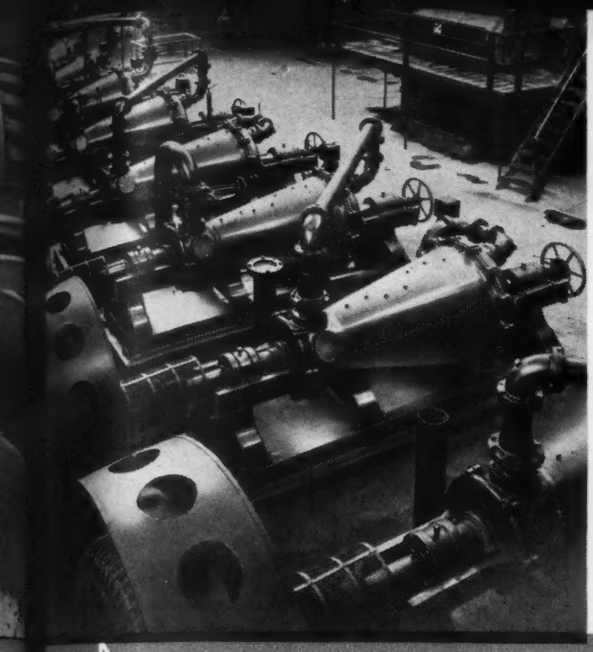
Retailers were willing to spend time in the back room of the store, cutting, folding and pasting wrapping paper by hand until they had a crude but useful counterpart of today's grocery bag. Try to wrap up five pounds of flour in a sheet of paper! Even if you form a cornucopia—and that was the inefficient forerunner of the bag—you'll run into leakage and court outright disaster.

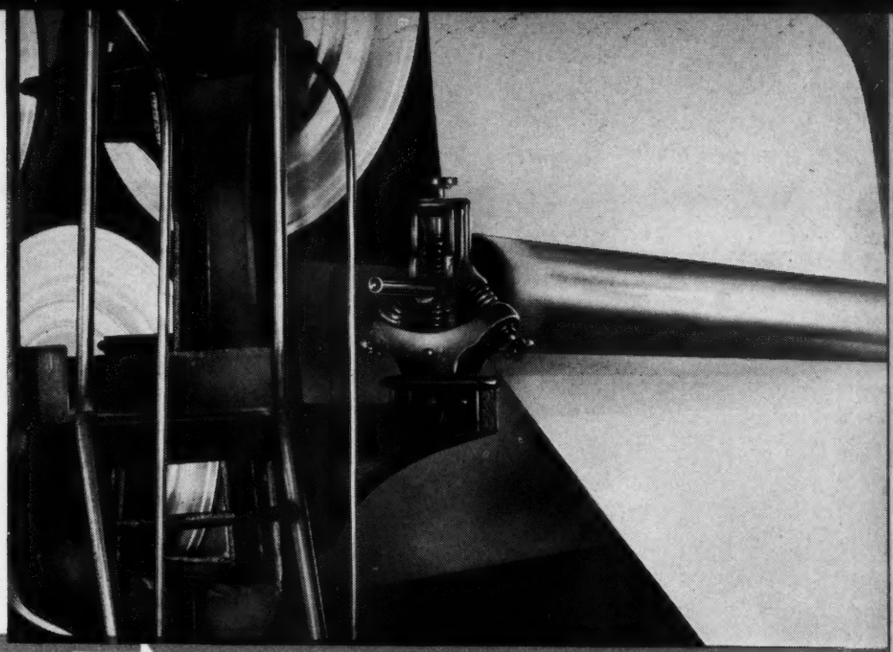
The hand-made bag, 150 years ago, was a standard item. Grocers and seedmen bought rolls of paper especially tailored for the purpose. This paper was made of jute and hemp, imported from India. The actual cost of each hand-made bag to the merchant was many times what it is today, when several bags made from sturdy brown kraft paper—manufactured from wood-pulp—can be purchased for one cent.

Making bags by hand was a slow and tedious process. If a clumsy clerk were assigned the task, the bags became unpasted, or leaked where seams were not properly closed. In 1850 an enterprising man in Bethlehem, Pa., noted this—perhaps through personal experience with a badly-made bag.

Francis Wolle is the first name to appear in the archives of the paper bag's history. In 1850–51 he built a machine, and in 1852 he submitted to the U. S. Patent Office drawings for an invention which:

> "Consists in certain devices, by the combined operation of which pieces of paper of suitable length are given out from the required width, cut from the





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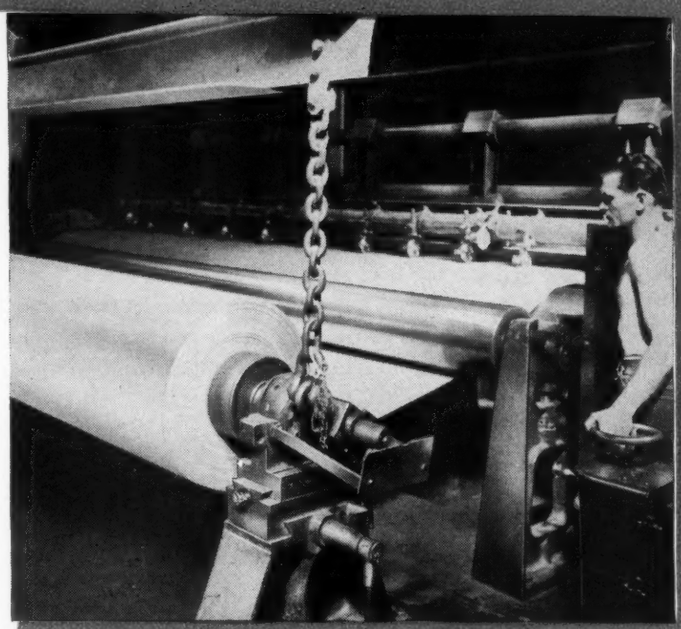

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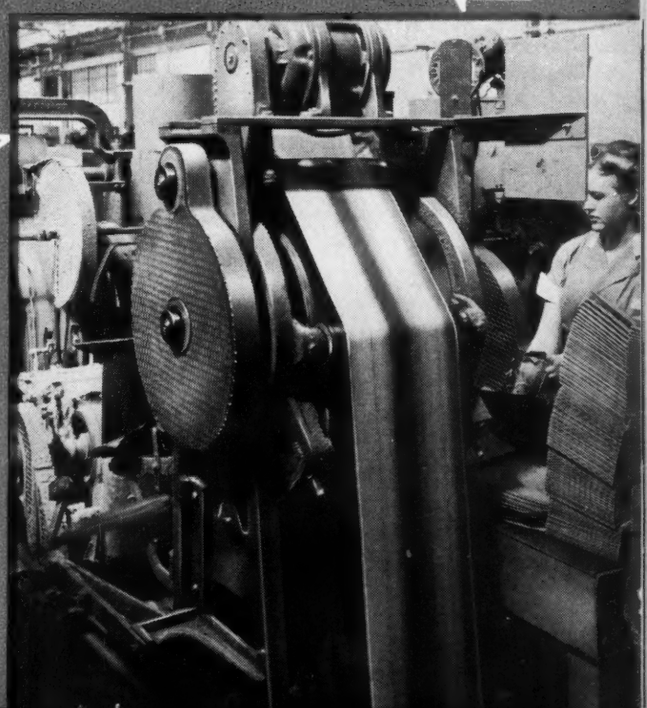

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***3**—Row of Jordans, refining engines which process wood pulp for Fourdriniers.* ***4**—View of web of kraft emerging from drying rolls at end of paper machine.* ***5**—Finished kraft winds on reel at end of paper machine. Filled reels are cut away and another started, without interrupting process or slowing down machine.* ***6**—High-speed bag machine in operation. Bags automatically counted in units of 50 are shoved to operator for bundling.*

roll and otherwise suitably cut to the required shape, folded, their edges pasted and lapped, and formed into complete and perfect paper bags which when dried will be ready for use."

Wolle was granted a patent in October 1852, but even if his machine produced "perfect bags," and that is open to question, he found the going difficult and slow. He tried marketing his product in Philadelphia and the surrounding area, and later made the following observation:

"We found it all hard, up-hill business in our efforts to overcome habits and prejudices of consumers of paper and bags. The business was new; no bags had ever been offered for sale before. We discovered that it required a great deal of persuasion and argument to convince parties of the importance of buying them and the advantage of trying them. In regard to pecuniary success, difficulties were so great that in almost every instance commission or expenses amounted to more than profits—a good deal more."

Resistance to a new commodity was not the only strike Wolle—and by this time there were three other bag-machine inventors in Boston—had against him. The paper companies were against the new enterprise. They were selling grocers rolls of paper of a size and quality especially adapted to the hand production of paper bags, and were afraid of losing this business. It apparently never occurred to them that a machine could

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***7**—Girl operating machine which fastens loop-type twisted-kraft handles to retail potato bags.* **8**—*Interior view of high humidity cabinet large enough to test 100-lb. bags at Products Development Laboratory of Union Bag, Hudson Falls, N. Y. Packages are being weighed to determine the moisture pickup.*

eat up a thousand times the quantity of paper which they supplied to a grocer's back-room cutting-and-pasting bench.

In Boston, Whitney & Priest, among the country's first manufacturers of machine-made bags, also left a record of obstacles which had to be surmounted—principally by persistence and downright drudgery.

Whitney personally covered the country within a 10-mile radius of Boston by foot and by buggy for five years, peddling paper bags. Sales could be made in no other way. Gradually sales-resistance wore down. Grocers, provision dealers and poultry merchants began to buy the machine-made bags with regularity. The salt trade eventually began to use the Whitney & Priest bag for packaging their product.

Encouraged by these signs of success, Whitney ventured further afield. He was swindled right and left on more than one occasion, but armed with his paper bag he invaded New York, Washington and even the large cities to the West, where he made sales to dealers who supplied the Western and Southern trade.

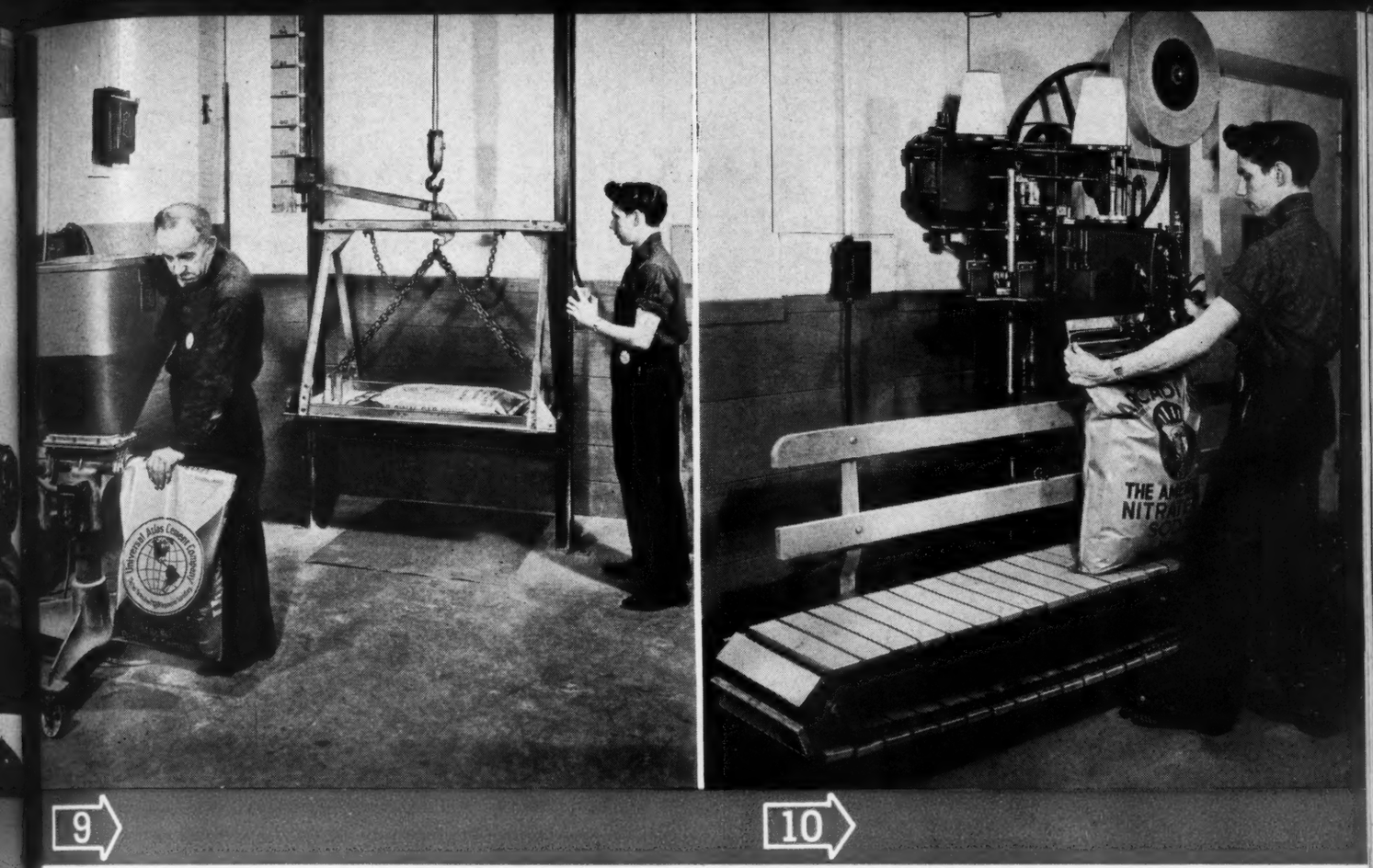
In 1869 pioneer Wolle, his brother Augustus, S. E. Pettee, F. W. Leinbach and L. Whitney, Jr., formed the Union Paper Bag Machine Co. under Pennsylvania law.

This group, which owned all bag machine patents and leased machines on a fee basis, controlled 90% of the paper bag business in the United States. No record of production for the nation was kept in those early years, but it can be assumed a machine operator of those post-Civil War days would have laughed derisively if told that 75 years later the Union Bag & Paper Corp., lineal descendant of that birth, would turn out 25,000,000 paper bags a day in one plant in Savannah—largest integrated pulp, paper and bag factory in the world.

The four huge paper machines in this one plant produce 1,000 tons of kraft paper daily from 110 carloads of Southern pine. A fifth machine of 250 tons daily capacity will go into operation in 1947. To assure a constant wood supply, Union has actively fostered a long-range forest conservation plan, which places emphasis not only on fire prevention measures, but encourages farmers to raise pulp wood as a crop. Woodlot owners are urged to practice selective thinning, which improves forest growth as demonstrated on Union Bag's own half-million acres of forest land.

A giant now, the paper bag industry had many difficult obstacles to overcome in its early days. Some of them have been described by A. C. Gettern who became superintendent of Union Bag's Hudson Falls, N.Y., factory and served until 1905.

Gettern, mustered out of the Army in 1865, found his way into the paper bag business via the printing trade.



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9—Physical testing laboratory. Operator at left is filling a valve bag on a small filler, preparatory to drop testing. At right, filled bag rests on table of drop tester, ready for release onto cement floor below. **10**—*Hundred-pound multiwall bag being sewn on Union Special machine before drop test.*

Even at that early date, paper flour sacks were printed with the flour manufacturer's label—though by no means was the result to be compared with today's multi-colored print job on a multi-wall sack. And in those days orders averaged 25 to 50 sacks—an order which today would be refused.

In his reminiscences, some 40 years later, Gettern recalled some of the technical difficulties under which the infant industry of the '60's operated. He started work in Chicago as foreman and machine-runner in the "plant" of Wheeler & Hinman. The firm had five Pettee flat bag machines in a loft which could be reached only by climbing four steep flights of stairs. Those five machines, which turned out more imperfect than perfect bags, were the pride of the Middle West. Today, Union Bag has in operation at its Savannah, Ga., plant, 178 bag machines. The pasting system which binds the seams stands in strange contrast to the method young Gettern had to use.

As foreman, he had to mix the paste in a bucket by hand, carry it to the machine and fill a cup which supplied the revolving disc applicator. The paste was made of flour—lumps and all. Live steam was used to "kill" the paste squeezed from the seams onto the surface of the bags, to keep them from sticking together when bundled for shipping.

The steam was "rented" from an adjacent candy factory, and the supply depended on the mood of the engineer who had control of the valve. His mercurial hand caused Wheeler & Hinman considerable annoyance. On one occasion a Beloit, Wis., firm sent in what in those days was a large order. The bags were shipped and in return came a letter requesting that in the future they would like to have their bags pasted. The engineer had been so generous with the steam that not only the excess paste but that needed for sealing had been dissolved and vaporized away.

The Beloit house, its injured feelings somehow salved, sent in another order. Gettern was told: "This will be our last chance . . . don't be stingy with the paste. Put on plenty, and especially on the larger sizes."

The factory complied to the letter. This time the word from Beloit was: "Consignment of bags received. Can't report on quality of bags until spring. Every package, especially the larger sizes, frozen solid." This time the steam had been feeble.

"That was tough on my reputation," reported Gettern, "but it came out to our advantage in the end. That engineer didn't have control of the live steam after that and I began experimenting with starch for paste."

That the experiment was (*Continued on page 174*)

Self-coloring package for oleomargarine

1—*Housewives in the test area have shown enthusiasm for this margarine sealed in a tough plastic bag, which permits kneading-in the color right in the package.*

Oleomargarine is a packaged product perhaps unique in that it has been made difficult of acceptance by Federal law. A substitute for butter almost indistinguishable in taste and nutritional qualities, it is naturally white but can readily be given the color of butter by the addition of harmless vegetable dyes. Yet a Federal regulation adopted years ago places a heavy penalty on any manufacturer or retailer who sells margarine colored. The seller is permitted to furnish a capsule of coloring matter separately, but the law forces the housewife to do her own mixing.

Ostensibly, this regulation was adopted to prevent unscrupulous dealers from misrepresenting oleomargarine as natural butter—for which it could easily pass when colored. In the view of many critics of the law, however, it was simply an attempt to protect the dairy industry from competition. Be that as it may, the nuisance of the coloring operation has undoubtedly been a deterrent to consumer acceptance.

A new package now being introduced by the Cudahy Packing Co. for its "Delrich" brand of oleomargarine complies with the law yet makes the business of color-mixing so simple that it apparently will overcome all sales resistance on this point.

Its secret is a transparent bag made of a plastic film—very tough, flexible and capable of a strong heat-seal. Both the margarine and the usual gelatine color capsule are contained in this bag, the capsule being held to the inside surface of the bag by a perforated patch of the same plastic film. The bag, shaped to a square form as the margarine solidifies on cooling, takes the place of the usual greaseproof paper wrapping inside the customary waxed paperboard carton.

When she is ready to color it, the housewife simply removes the bag full of margarine from the carton and allows it to soften at room temperature. She pinches the capsule to break it and release the coloring fluid and

2—*With margarine softened to room temperature, color capsule—attached inside of bag—is broken by pinching.*

3—*Two minutes of vigorous kneading with fingers will mix color evenly through margarine. The bag can take it.*

kneads the margarine—still sealed in the bag—with her hands to mix the color uniformly through it. The bag may then be returned to the carton, blocked back into its square shape, and placed in the refrigerator to re-harden before use. Thus, without touching it with her hands, the housewife obtains a pound of *colored* margarine, which may be cut like butter.

The unusual plastic film which makes this possible was developed by the Visking Corp., Chicago, which discloses only that it is a thermoplastic, non-toxic, has chemical stability in the presence of fatty acids and brine, is colorless, very elastic, and may be produced at low cost, so that its use will make little or no change in the retail price of oleomargarine. Made without a plasticizer, the 2-mil film is said to be free from odor or taste. It is a seamless tube, apparently extruded.

One end of the tube is heat-sealed and the margarine —in a warm, flowing condition—is poured in by gravity in a specially developed filling machine. The top of the bag is then heat-sealed and it is placed in a West Coast butter-style folding carton which is richly printed in red, blue and black on a butter-yellow background. On each panel of the carton, a splash of bright red calls attention to the new "E-Z Color Pak."

Experience with the package to date indicates that it will have many indirect benefits in addition to the very important one of consumer convenience. It seals out dirt and dust completely, and it promises to eliminate returns due to leakage in hot weather. It can be displayed on unrefrigerated counters. From the housewife's viewpoint, it eliminates the use of dishes, pans and implements formerly required for coloring; keeps grease and hard-to-remove color stain off hands and clothing; promotes easier reshaping and protects the margarine from picking up refrigerator odors.

The oleomargarine industry is now producing at the rate of 550,000,000 lbs. a year, of which about 450,000,000 lbs. are packaged for home consumption. It is estimated that the usual mixing-bowl coloring operation wastes $2\frac{1}{2}\%$ of the home figure, or 11,250,000 lbs. each year which would be eliminated with this package.

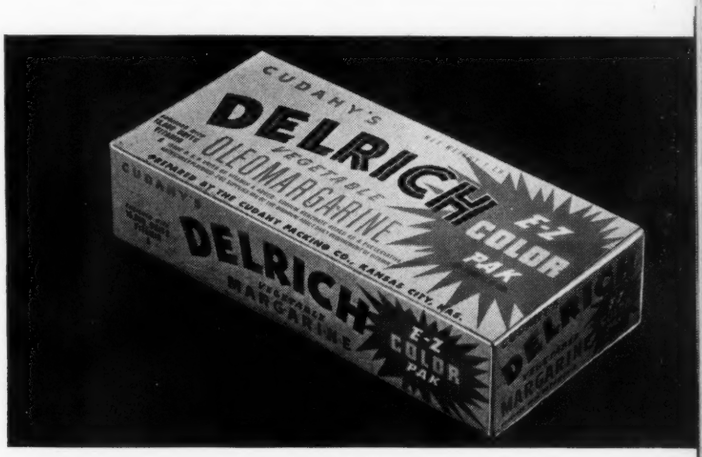
Due to limited supplies and production facilities, Delrich margarine is at present on sale only in the Joliet, Ill., area, where an extensive test is being made by the Cudahy company. Enclosed in the package is a prepaid postcard informing the purchaser that she is among the first "to enjoy this new Delrich E-Z Color Pak . . . Please tell us how you like it."

Cudahy officials estimate that all of their production of margarine will be in the new package in about six months to a year. As the first licensee of the package, the Cudahy company has developed its own filling and sealing procedure (details of which are not disclosed), and it is expected other firms will do likewise.

How to color DELRICH
IN THIS SEALED E-Z COLOR PAK
NO MIXING UTENSILS OF ANY KIND NEEDED
DELRICH
CHECK THESE ADVANTAGES YOU GET IN
DELRICH The Margarine made with SWEET WHOLE MILK*
Some Grand DELRICH Recipes
MOCHA DELRICH FROSTING
DEVILS FOOD CAKE
Prepared by The Cudahy Packing Co., Kansas City, Kansas

6—*Unusual feature is use of inside of carton for "how to color" instructions, recipes, etc.—more convenient and freeing exterior panels from cluttering details.*

4—*Bag is then returned to carton, squared up and placed in refrigerator to harden—the flavor still sealed in.*



5—*Exterior of carton is simple, effective. Plays up new convenience feature in red splash of color on all panels.*

CREDITS: *Bag material by the Visking Corp., Chicago. Bags made by the Paul L. Karstrom Co., Chicago, licensee of the Lion Rock Corp., Chicago. Folding carton by Sutherland Paper Co., Kalamazoo, Mich. Gelatin coloring capsules by Gelatin Products Corp., Detroit.*

1—*Constant vigilance and insistance upon sanitation not only makes the Hershey plant packaging line an inviting and appetizing place but inspires consumer-visitors with confidence in the products.*

Fighting contamination

. . . its part of the packaging job

Sometimes a producer of packaged merchandise, intending to protect his product and preserve its wholesomeness until it reaches the consumer, unwittingly uses a good package to preserve harmful and dangerous matter.

Legally and technically, of course, a producer cannot be held to account for contamination in his product unless the contamination occurs while the product is in his actual possession. The Food and Drug Administration recognizes this fact. In the FDA case reports of adulteration and misbranding, the product and firm names which appear are frequently well known and highly reputable. An FDA action is brought, for example, against "13 cases of macaroni," with brand name given, and the violation charged is "Adulteration, Section 402 (*a*) (3), the product consisting in whole or in part of filthy substances." The case often enough is eventually disposed of thus: "No claimant having appeared, judgment of condemnation was entered and the product was ordered destroyed."

Manifestly, the blame for this contamination should not necessarily be laid to the maker of the product. Suppose, however, instead of having been seized by FDA inspectors, the macaroni had gone through regular trade channels to ultimate consumers. In that case, probably both product and producer would have suffered a serious loss of good will—perhaps a permanent boycott. The unfortunate feature is that the consumer seldom voices her complaint in such a manner that it reaches the producer—she just quietly chooses another brand. Sales of the first product fall off—and the producer may never know why!

All clear-sighted producers sense the importance of a situation like this. There is, of course, a very small irresponsible fringe of manufacturers who are indifferent to sanitation and conditions, and there are teeth in the food laws intended for such gentry; but there is a keen feeling of voluntary responsibility on the part of most producers, who are vitally concerned not only with what happens before receipt of the raw materials but also for conditions in the plant as well as hazards faced by the packaged goods after shipment.

The contamination of a product obviously may occur before, during, and/or after the packaging operation. At all points, eternal vigilance is the price which must be paid for a product that deserves the confidence of the consumer. The fight against contamination, therefore, is waged on several battlefields. It begins at the time when crops are harvested in the field and continues until the package of the processed product reaches the hands of the consumer. And so the packager of foods or drugs makes it a practice to familiarize himself with those stages of the supply process ordinarily considered outside his province and to take steps to help control the sanitation factor at those points. He learns all he can about the hazards he must guard against and sometimes specifies methods of harvesting the crops or producing the raw materials or storing the goods prior to his receipt of them. If the raw materials require packaging in order to facilitate delivery to his plants, he will specify methods and materials to insure perfect condition, and when the goods arrive, they will be subjected to careful inspection prior to storage.

The Food and Drug Administration observes that

frequent visits by company officials to the warehouse or storage room where raw materials are kept have a salutory effect on conditions. For one thing, their realization is keener as to just what the hazards are, and the very fact of an executive visit results in greater vigilance on the part of warehouse employees. Likewise, the storage conditions for inventories of packaging materials should come under official surveillance. Such materials, carelessly handled or stored, can be a prolific source of contamination.

During the war shortage period, acute needs necessitated certain practices that brought with them possible dangers. In one instance, a serious case of insect infestation in packaged cookies was traced to the repeated use of jute bags, used for carrying flour from mill to baker. Before re-use, the instructions were to shake out and brush these bags, but it is almost impossible to get all of the flour out of the seams this way. The bags doubtless looked clean, but there was enough flour left to attract insects which deposited their eggs where ordinary eyesight couldn't detect them. The eggs hatched out and infested the new flour when the bags were refilled. At this stage, no superficial inspection could detect their presence, and in the storage bins of the bakery company the insects multiplied. When the contaminated flour was taken to another part of the plant in a closed conveyor, the conveyor itself became infested. Clean flour picked up the infestation from the conveyor and the cookies made from it were contaminated. In this instance, the baker was held definitely responsible, although the original contamination occurred before the flour was in his possession.

Lest the foregoing should occasion undue alarm, it should be pointed out that the Food and Drug Administration freely admits that in 90% of insect infestations there is no direct health hazard. Insect-infested foods aren't particularly appetizing but the objection to them is a matter of lack of aesthetic appeal rather than for reasons of toxicity.

The packager who has supervised the cleanliness of food and packing material during preliminary handling as well as in his own plant can be relatively certain that the product at the time of leaving his factory will meet the most rigid standards of sanitation. But even then he cannot afford to relax his vigilance. Between the time the packaged commodity leaves his premises and the time it reaches the consumer, it may become contaminated due to improper storage or handling in warehouses and retail outlets.

Control of sanitation in a warehouse is made easier by the fact that at this time the merchandise is still the property of the producer. He can withdraw his business from a warehouse in which storage facilities are unsatisfactory. It is the owner of the warehouses, rather than the packager, who will lose—financially, at least—by failure to correct conditions.

Managers of one large firm found the simplest way to make certain that their goods would be safely stored and handled in scattered warehouses and retail outlets was to place the responsibility upon its own sales force. A manual was prepared to instruct branch sales managers in their new duties, which included choosing warehouses and making periodical visits of inspection.

When dealing with retail outlets, more diplomacy is necessary, for no company wants to antagonize its customers. The salesmen had the task of calling the situation to the attention of store managers and giving them constructive suggestions in ways to improve existing methods of handling their stock.

In-plant conditions are ideal. The chief problems are not willful evasion of the law or deliberate chicanery, but rather ignorance, carelessness or lack of manpower.

Ignorance is the primary factor contributing to undesirable conditions in the plants of small-scale producers in specialized branches of the food industry. Carelessness, on the other hand, can be responsible for unsatisfactory conditions in even the largest and best-equipped establishments. Sanitation is too often inadvertently under-estimated in comparison to other phases of production. The management urges economy and speed particularly during the manpower shortage.

When a large shipment of very ripe tomatoes is received by a canner, although this is the very time when careful sorting is most necessary, it is a temptation to

2—*Tuberculin and other purity tests of all incoming supplies of milk are made in the Hershey laboratory where skilled technicians watch all the phases of manufacturing and packaging processes.*

5—Pre-cooked dried beans showing effects of rodent attack. Even cartons apparently undamaged may be affected. **6**—*The manufacturers of drug and pharmaceutical products maintain highest laboratory standards. Illustration shows the inspection of control samples in the plant laboratory of McKesson & Robbins.*

speed up the rate of the sorting belt or to transfer some of the sorters to another step of production. The temptation is all the greater because the presence of mold or rot from overripe tomatoes in soup can be detected only by micro-analysis.

Where the fault has been one of carelessness, it is often sufficient merely to call the matter to the attention of the management. Within a few hours after an inspection, officials of one large drug company had notified Washington FDA officials that a special crew of plant engineers was being detailed immediately to effect compliance with all recommendations.

Various methods have been used by producers to clean up in-plant conditions. Occasionally, of course, major changes must be made in the physical condition of the factory—screens must be installed, new flooring laid or additional equipment obtained. Usually, however, the psychological approach is the most important. Having themselves become aware of the importance of sanitation, plant officials attempt to arouse a similar consciousness in their employees by introducing such devices as signs, white uniforms, hairnets, etc. One firm gave to a popular and trusted employee the title of Plant Inspector and the authority to enforce sanitary measures. In another plant, conspicuous signs were posted reminding workers to wash their hands whenever they entered a work room, and the wash basins were removed from the rest rooms to the front of the work room where co-workers could see that he complied.

Only when he has knowledge and control of all three phases of the process by which packaged food reaches the hands of the retail customer has the packager thoroughly protected his product. From the standpoint of the Food and Drug Administration, such a three-fold program, instituted by each packager, is the best guarantee of clean packaged food. It can be effected, they believe, by educating producer-packagers as to their responsibilities, with frequent inspections to check relapses, and by legal proceedings and fines in cases where learning is slow.

The Food and Drug Administration is not without allies in the war it is waging against contamination. As already indicated, its chief help comes from companies themselves who voluntarily institute measures to maintain the highest possible standards. An excellent example is afforded by the practices of the Hershey Chocolate Corp. This company has a keen realization that the efforts to prevent contamination of packaged merchandise must begin on the farm. Accordingly, they follow definite and systematic practices to control the quality of milk supplied them, even going so far as to pay a premium price to dairy farmers who meet their standards. In addition, they make payments for the installation of special cooling equipment. Operations are so systematized that all milk received at any station is shipped to Hershey and condensed on the same day on which it is taken from the cow. Their factory consists of a series of buildings all interconnected in such a manner that the materials move through the various processes to a centralized point of shipment.

The Hershey employees, it is the company's proud boast, are traditionally good housekeepers, mainly of Pennsylvania Dutch extraction. The company makes capital of its clean, wholesome and inviting factory (see MODERN PACKAGING, Feb. 1946, p. 119) to which visitors come from every part of the country.

With such scrupulous in-plant care, this company has every reason for believing that their products leave the factory in perfect condition. Their watchfulness, however, does not stop at the factory door. Products like theirs must be handled carefully and stored properly until it reaches the consumer. In their own warehouses, of which there are 13 in various parts of the United States, they maintain similar standards of cleanliness. Further, they carry on intensive campaigns of instructions for dealers, covering the proper methods of protecting products such as theirs. These efforts are bearing fruit, as is evidenced by the decrease in damaged merchandise in dealer hands. The company declares its fixed policy of assuming full responsibility for any products not fit for consumer use, even though replacement of spoiled merchandise means a loss.

In plants where drugs and pharmaceuticals are manufactured, every precaution is taken to insure purity of

product and cleanliness of packaging. In the McKesson & Robbins plant, a rigid system of control has been in operation for many years. Lot samples are taken at frequent intervals to the control laboratory where trained technicians match them against specifications. No material is delivered to the producing floors unless it bears a label indicating approval by the control laboratory. After packaging operations have been completed, samples of each lot of the packaged goods are submitted to the laboratory for a last check-up before it is released for shipment. A complete analytical history is kept of each product and its ingredients. Prior to the use of any piece of equipment in the plant, a check-up is made by one of the research chemists. This applies not only to the mixing vats but also to such equipment as bottle fillers and other machinery.

Devotees of the five-cent candy bar will be interested in the precaution for sanitation taken by one prominent manufacturer of this form of confection. The Mars plant is housed in a building which in itself seems to suggest cleanliness. Freshly laundered uniforms, furnished at no expense to the employees, are issued each morning. This practice goes a long way toward inculcating a wholesome attitude toward sanitation on the part of all employees. Floors are mopped twice during each eight-hour shift. All equipment is steamed or chemically cleaned at the end of each eight hours. Considerable thought is given to the painting in the factory rooms—for instance, there is a $3\frac{1}{2}$-in. white strip where the wall meets the floor—an effective aid in keeping corners immaculate. Every possible operation is adopted that eliminates the handling of the product, and whatever stainless steel equipment is available will be found in the Mars plant. The building is ratproof, and fans are placed at every entrance to prevent the flies from entering. Air conditioning permits the windows to be closed at all times, obviating the need for screens. Incoming raw materials, both for packaging and for product, are carefully checked on receipt. Goods are not permitted to accumulate in the hands of jobbers and retailers. The wholesalers are expected to maintain a bi-weekly turnover and retailers face the prospect of being dropped if they fail to maintain at least a 30-day turnover.

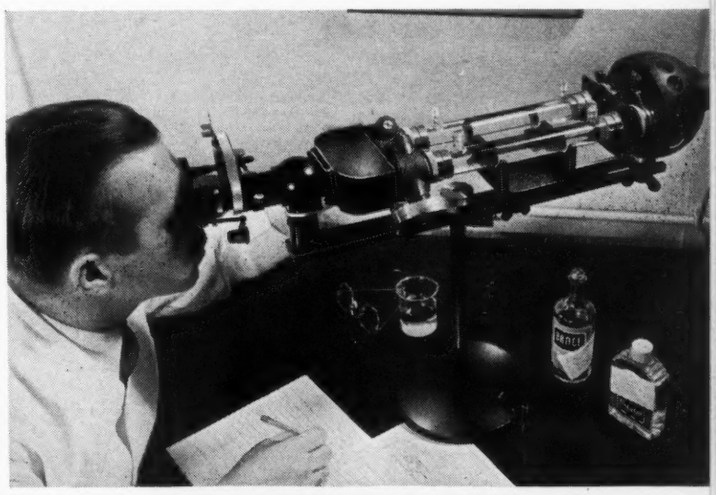
Many state health departments in the course of campaigns for disease prevention have instituted educational programs which have done much to awaken producer, retail middleman and consumer to an awareness of this and related problems. Texas, for instance, has given wide circulation to booklets intended for the instruction of employees in establishments that handle foods. One of these, "Food Handling and Disease Prevention," discusses and illustrates in an easily understood non-technical manner the causes of contamination and the easily-observed precautions for prevention. Another, "Take a Tip," by means of clever whimsical drawings and simply worded injunctions presents principles which most people should observe as a matter of second nature—but they don't!

The trade association is another type of organization which has often done beneficial work on such problems within a specific branch of industry, making available to all its members the results of its research. An outstanding example of this sort was the program for weevil control carried on by the Millers National Federation before the war.

But in spite of the cooperation of such groups, the problem remains essentially that of the individual producer of packaged commodities. Regardless of which may be the weak link in the processing chain from the farmer's field to the consumer's shelf, if the food is unclean it is the producer who will suffer—first, because he may be legally responsible and, secondly, because the average consumer, unaware of the multiple steps in the process, identifies the unsatisfactory condition of the product with the producer whose brand name appears on the package.

(MODERN PACKAGING *gratefully acknowledges the assistance of G. P. Larrick, chief inspector, the Food and Drug Administration, in the preparation of the material for this article.*)

7—*Products in process are under constant scrutiny in the McKesson & Robbins laboratory.* **8**—*McKesson's keep samples of each lot of packaged goods along with a complete permanent record as well as the analytical history.*



Display Gallery

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1 A one-piece, die-cut folding carton used to ship 24 packages of the new Star, double-edge blades opens into this counter unit that presents the packages in three-tiered set-back fashion. Printed in red and blue on white stock, the design feature of the unit is a reproduction of the actual packages on the flap which goes behind the merchandise. These reproductions are revealed as each package is removed, taking away that half-empty look which many counter units have as the merchandise is sold. Design, Norbert Jay, New York City. Carton, General Carton Corp., Brooklyn, N. Y.

2 A new pilferproof counter display has been developed for Louis Philippe's Sun Bird lipstick. A small die-cut opening in the easel-mounted card holds an actual lipstick case. Over this opening is fitted a cut-out of a stylized bird cage, the door of which is covered with acetate so the customer can see but not touch the sample. Transparent cellulose tape holds the stick in place. Display structure designed by C. L. Gregg, New York City. Lithography, The Meehan-Tooker Co., Inc., New York City. Mounting and Finishing, Pioneer Mounting & Finishing Co., Inc., New York.

2

3 A colorful bright blue and yellow counter dispenser welcomes back Verd-A-Ray's Insect Repellent lamps. A flasher socket adds considerably to the attention-getting value of this counter-piece which holds an assortment of 72 bulbs in the popular 60- and 100-watt sizes. Two pieces of

I'm Back Again!
THE ORIGINAL
INSECT REPELLENT LAMP
60 WATT 25¢
100 WATT 35¢
REDUCES ATTRACTION FOR ALL NIGHT FLYING INSECTS UP TO 80%

3

lithographed stock comprise the basket—no gluing or stapling—and special scores, die-cut tabs and slots hold the display together. The dispenser measures only 13 in. in width and height and is but 10 inches deep—small enough to fit into almost any display space. Forbes Lithograph Mfg. Co., Boston, Mass.

4 Park & Tilford uses this small step-arrangement as a counter-unit to promote its newest perfume, "Sharp." The small flaçons fit into die-cut slots but can be lifted out easily for self-service selling. Display, Brooks Banknote Co., Springfield, Mass.

5 This cut-out window and store display in full color made for P. Ballantine & Sons, brewers, stresses seasonal appeal. An interesting three-dimensional effect is achieved by having the peak of the beach hat project out in front of the display. Display, Einson-Freeman Co., Long Island City, N. Y.

6 For permanent protection of merchandise, Columbia Walescraft Co. chooses a combination of wood and glass to make this display for Scotch purses. The unit is virtually tamperproof with a back-opening door. The natural wood is finished with a clear maple lacquer and lettering is silk-screened in bright red to catch the eye of the impulse buyer. Display, General Display Case Co. Inc., New York City.

7 This new natural color display of the floor-stand type holds several cases of Verifine Evaporated Milk and acts as an invitation to purchase when used in a good traffic spot in the retail store. Natural color illustrations along each side of the top panel appetizingly remind the housewife of the many new uses that she can make of the milk. Display, Milprint, Inc., Milwaukee, Wis.

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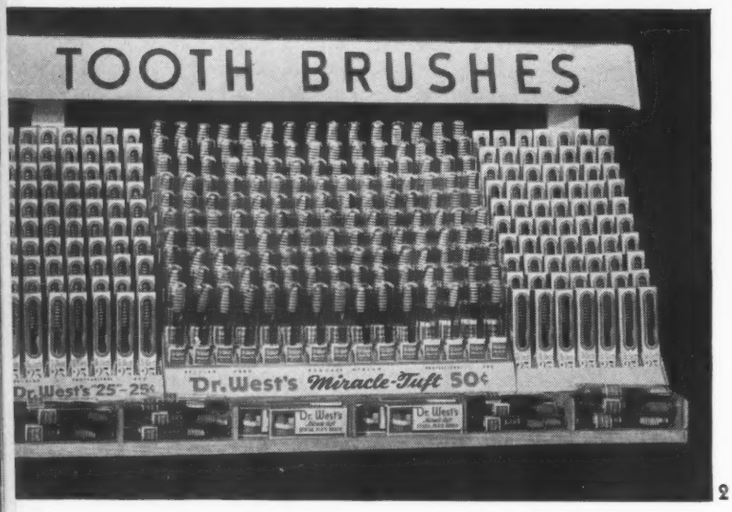


2

3

1—Dr. West's new toothpaste tube and carton are designed in the familar family colors of Dr. West toothbrush labels. **2**—*New point-of-sale fixture, 42 in. wide and 24 in. high, has fluorescent sign as wide as fixture that casts light over entire display.* **3**—*Spinner display is a spot merchandiser for glass-packaged tooth brushes.*

Dental merchandising

. . . new product, new package, new sales aids for Dr. West

The American public possesses the biggest backlog of savings in history, but to make people part with their reserve, you must give them good reason for spending, according to President Jack Woodside of Weco Products Co.

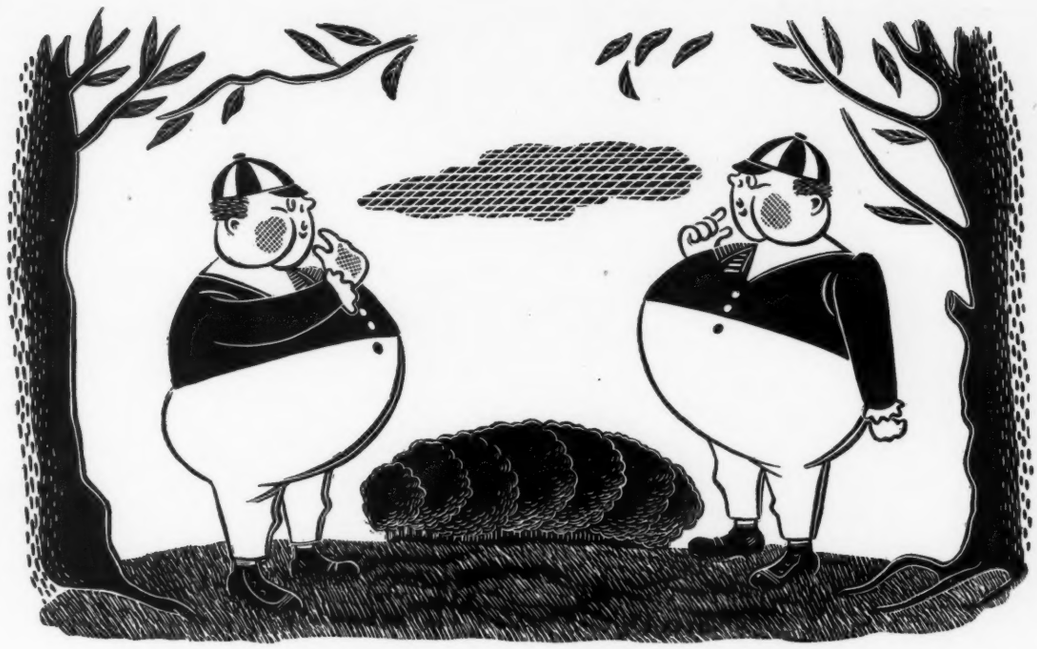
Proceeding on this theory, Weco has launched a broad new merchandising program which from the packaging standpoint includes a package for a new product—Dr. West's Miracle toothpaste sold as a related profit item to Dr. West's Miracle-Tuft toothbrushes—and eye-appealing point-of-sale counter displays.

Designs for the new toothpaste carton and tube carry out the familiar family colors of the labels on Dr. West toothbrush packages. Background is white with the trade name printed in reverse on a magenta panel with the scroll in non-metallic gold. The tube is protected inside the carton by scored die-cut board which gives greater rigidity to the package.

Most unusual of the point-of-sale fixtures is a new dental department created for mass selling (Fig. 2). It measures 42 in. wide and 24 in. high with a fluorescent sign as wide as the fixture that sheds a brilliant light over the entire display of glass-packaged Miracle-Tuft brushes as well as the 25-cent carton packaged brushes which flank the central part of the display. This unit, built of wood, is made available to retailers with the agreement that the center section must be retained exclusively for the display of Dr. West's Miracle Tuft brushes.

Another fixture (Fig. 3) is known as a "spinner display" suggested as a spot merchandiser for either the tobacco counter or the cosmetic department. The unit is equipped for the placing of a sales message in a slot on top. It turns around like a "lazy-Susan" so the customer may select the brush he prefers. Assembled with all of the glass-packaged brushes, it offers a colorful display of the different-colored brush handles clearly visible through the package.

CREDITS: *Toothpaste carton, American Coating Mills, Elkhart, Ind. Collapsible tube, Atlas Collapsible Tube Co., Chicago. Fluorescent merchandiser, Imperial Methods Co., Chicago, Ill. Spinner display Milton Sturm Co., Forest Park, Ill.*



Tweedledum and Tweedledee

Among human beings, twins are terrific, triplets are sensational, quadruplets are rare and quintuplets hardly ever happen.

We don't know the word for it, but at BURT we are constantly producing batches of packages in the millions, each of which is the exact counterpart of the other. They are not only similar, they are precisely duplicates of each other, and you couldn't tell the first from the millionth if you tried.

This is very important to our customers who are mass producers for mass markets. Their packages must be as uniform as their products, and of the same high quality. BURT production of small, round, oval, oblong and square set-up boxes is automatic from start to finish, insuring not only the quantity but the type of product that packagers need. Furthermore, our automatic manufacture offers economy, and speed; and our central location, rapid shipments—as rapid as can be had under today's conditions.

F. N. BURT COMPANY, INC.

500-540 Seneca Street, Buffalo, N. Y.

New York City • Philadelphia • Boston • St. Louis • Atlanta • Chicago • Cleveland Cincinnati • Los Angeles • New Orleans • Memphis • Minneapolis • Kansas City San Francisco, California • Newark, New Jersey

CANADIAN DIVISION:
Dominion Paper Box Company Ltd., 469-483 King St. W., Toronto 2, Canada

A Tempting Trio

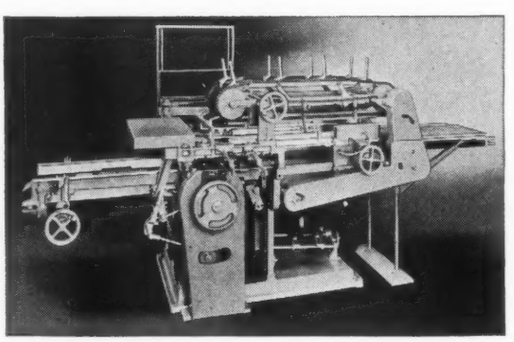
GIVEN A SALES-WINNING WRAP ON OUR MODEL FA

We think you'll agree that these packages of Zion Fig Bars are just about "tops" when it comes to tempting the appetite — for they display the goods in a most enticing manner. The attractive and colorful cellophane wrap has an air of quality, too, that cannot fail to build consumer preference.

Like so many other food manufacturers who demand perfection in wrapping, Zion Industries, Inc. of Zion, Ill., have consistently relied on our FA models. They were, in fact, among the first users of these well-known machines.

They have found the FA's flexibility a decided advantage, for it has made possible the easy adoption of new and improved wrapping materials. And, of course, its quick adjustability permits the wrapping of a wide range of package sizes.

Perhaps you have a product that would benefit by the superior wrapping produced on the FA. Why not ask our nearest office to supply complete information?



THE MODEL FA is quickly adjustable for a wide range of sizes. Can be adapted to virtually any plain or printed wrapping material.

PACKAGE MACHINERY COMPANY
Springfield 7, Massachusetts

30 Church Street, New York 7 • 111 W. Washington Street, Chicago 2
101 W. Prospect Avenue, Cleveland 15 • 849 Marietta Street, N.W., Atlanta 3
443 S. San Pedro Street, Los Angeles 13 • 18 Dickens Avenue, Toronto 8

PACKAGE MACHINERY COMPANY

Over a Quarter Billion Packages per day are wrapped on our Machines

Mechanical tightness... a package-testing method

*by T. A. Schwarz**

Under the impetus of the war, notable progress was recorded in the development of better packaging materials—whether they were entirely new materials or improved versions of prewar types. Unquestionably this commendable progress has been due, in a large measure, to the more widespread use of material-testing methods. The almost universal application of the Southwick Method of testing for water-vapor permeability is a case in point; methods like this have reduced guesswork to a tolerable minimum.

Unfortunately, however, this happy status does not apply to the development of the finished package, aside from a few notable exceptions which confirm the general rule. It is a well-recognized fact that many methods of producing the ultimate package can utilize only a fraction of the protection which has been built into the packaging materials by the producer, and no general improvement in this direction is in sight. Because of some basic shortcomings of packaging machinery today, the potential benefits of more-protective packaging materials appear in the finished package in a very diluted form, if at all.

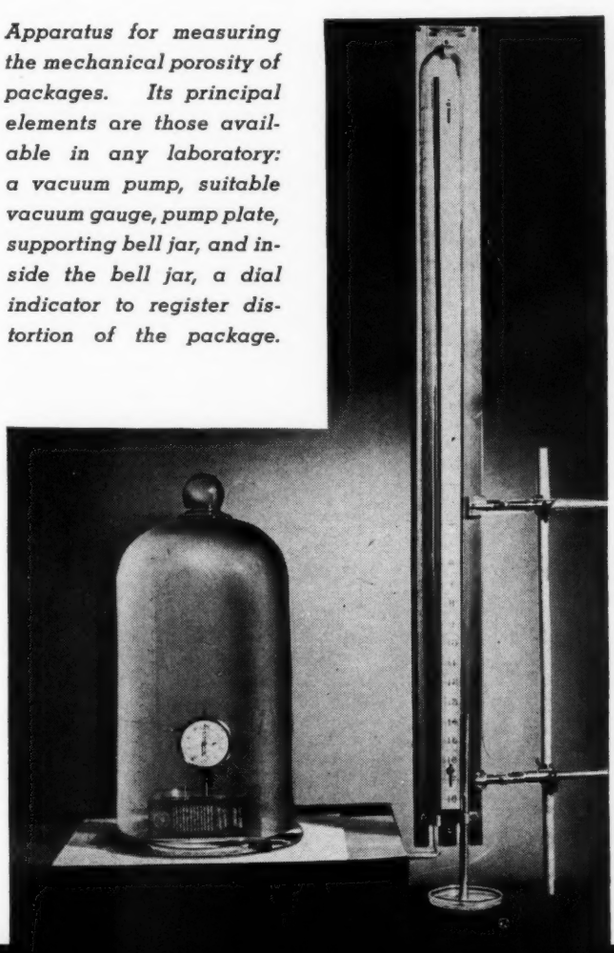
In the writer's opinion, this regrettable state of affairs is, at least in part, attributable to the inadequacies of package testing. The only quantitative test of any consequence which is performed on finished packages, aside from some strictly mechanical tests, is the accelerated storage test. The results of this test depend upon three principal and some minor variables which make the test too all-inclusive. The principal variables are: first, the drying-out tendency or hygroscopicity of the packaged goods; secondly, the water-vapor impedance of the package walls, and finally, the relative tightness of the package.

The influence of the first variable can be approximated from the characteristic equilibrium humidity data of the packaged goods, but even after that is done the testing system is still not univariant, as it should be.

This unsatisfactory situation became highlighted when in a recent series of accelerated storage tests on 1-lb. dried fruit packages widely scattered results were obtained, despite the fact that the packages and contents were identical with the exception of type and workmanship of the closures. The weight loss per package per week varied from a minimum of 0.1 gram for a hand-wrapped, heat-sealed package to a maximum of 1.2 grams per package per week for a commercially tight-wrapped package such as can be produced on an automatic tight-wrapping machine.

These variations could be explained, qualitatively, by assuming that the weight loss occurring through water-vapor transfer through the package walls is of relatively less significance than the loss which is brought about by the mechanism of "breathing." In view of the obvious differences between the closures involved it must be further assumed that the breathing apertures are of different size. In order to evaluate this breathing factor, we set out to determine, if possible, the rate at which air will escape from a given package under experimentally controllable conditions.

Obviously, the most direct manner in which this could



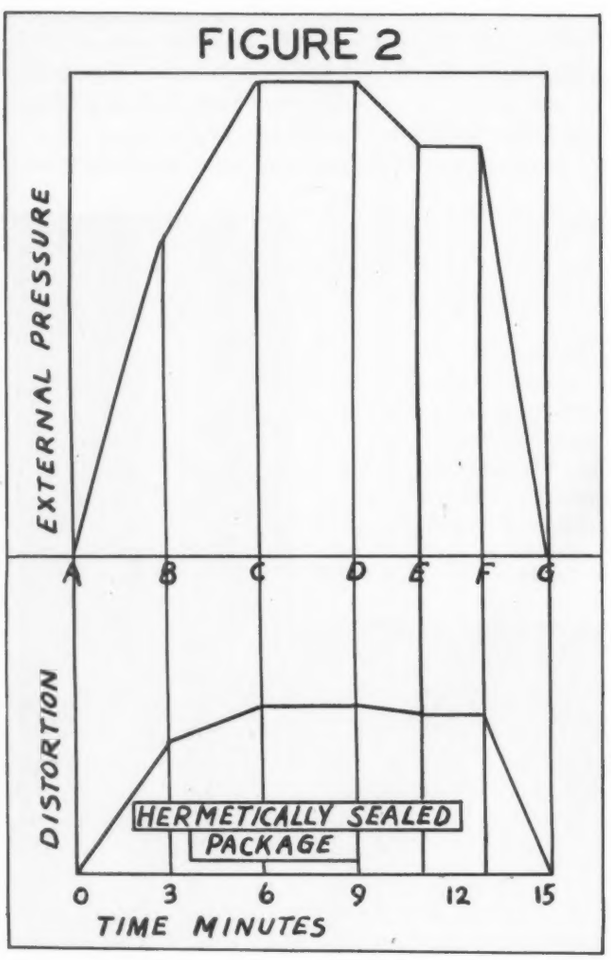
Apparatus for measuring the mechanical porosity of packages. Its principal elements are those available in any laboratory: a vacuum pump, suitable vacuum gauge, pump plate, supporting bell jar, and inside the bell jar, a dial indicator to register distortion of the package.

* Research Dept., Calif. Prune & Apricot Growers Assn., San Jose, Calif.

be accomplished is by introducing an air stream into the package through a suitable connection and then determining the rate of air flow at a pre-selected and constant pressure.

Some preliminary tests with a simple apparatus, in which air flow was measured by water displacement in unit time, showed up a number of weaknesses of this procedure. In order to induce conveniently measurable flow rates on a relatively tight package, an appreciable pressure difference between the inside and the outside of the package must be established, and since the package represents an elastic structure, any pressure difference will produce a distortion in the shape of the package. Such distortion, if it becomes pronounced, tends not only to strain the seal around the air inlet connection, which passes through a hole in the package wall, but—what is more serious—such distortion is bound to affect the size of existing breather openings and in extreme cases may even cause new openings to appear.

In other words, a package which is relatively tight in the undistorted state, may, as a result of the pressure difference, spring a leak and that would, of course, defeat the purpose of the test. Hence, one of the prime prerequisites of any such pneumatic test is that the degree of distortion of the package structure be definitely controllable and measurable within narrow and well-defined limits. Further tests along these lines showed that this condition was difficult to meet unless a rather elaborate setup for the automatic control of the pressure and a very versatile type of flow meter was employed.



In view of these obstacles in the way of directly measuring the rate of air leakage from the package, this approach was abandoned in favor of an indirect method, the distinguishing features of which will become apparent from the following description.

Description of apparatus

The apparatus required in this method is the very familiar air pump arrangement which is used in physics lectures on pneumatics. Its elements are a vacuum pump, the pump plate which supports the bell jar and a suitable vacuum gauge.

In order to follow the dimensional changes which the test specimen undergoes during the process of "pumping out," a so-called "dial indicator" graduated into thousandths of inches is mounted on a stand so that its plunger touches the center of the package side which shows the highest distortion; that is, the front panel of the package. The vacuum gauge is an inverted U-tube whose one end dips into a mercury-filled petri dish, while the other end is connected to the exhaust line of the pump plate. The scale is a meter stick hung alongside the mercury leg of the U-tube so that its lower end just touches the surface of the mercury. A good stopcock provided with a pointer and dial to permit reproduction of certain settings completes the apparatus shown in Fig. 1.

If a hermetically sealed, air-filled container is placed into this apparatus and the pressure gradually reduced (by pumping out), the resulting pressure difference between the inside and the outside of the container causes the air within the container to expand in accordance with Boyle's Law, and as a result the container walls will become distorted. A rectangular container tends to become cylindrical; it bulges outwardly (convex distortion) and the degree of bulging is related to the prevailing pressure difference. In short, such a container behaves like an aneroid barometer. This is shown graphically in Figs. 2 and 3, and the relationship may be stated by the following expression in which E stands for the unknown elastic properties of the container involved.

$$d_{max} = f(po - p)(E) \qquad (1)$$

If, on the other hand, a non-hermetically sealed container is subjected to the same treatment, we obtain a strikingly different distortion/time curve, such as is shown by Fig. 4. It becomes at once evident that in such a case the degree of distortion has nothing to do with the static pressure difference between the inside and the outside of the container. We note that the distortion/time curve proceeds in a stepwise fashion, and that the different distortion levels are approached in an asymptotic manner. This would indicate that

we are dealing with a dynamic system which tends to equilibrate at different levels of distortion.

Starting at the left end of Fig. 4 at point A, we see that while the external pressure rises to point B in a straight line, the distortion increases at first rapidly and then approaches asymptotically an equilibrium point at B.

Note that at point B, the external pressure curve changes and as a result the distortion curve *drops*, despite increasing static pressure (negative), to find a new level as point C is approached. Between points C and D external pressure is held constant, and the distortion curve drops and approaches zero.

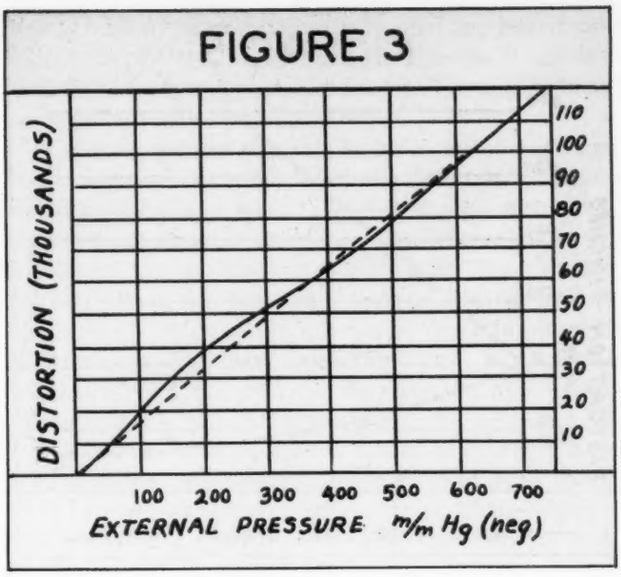
From point D on, the external pressure changes in the opposite direction, and hence distortion is reversed and becomes concave distortion. Going down we observe a repetition of the phenomenon of equilibration as has been discussed in detail on the way up.

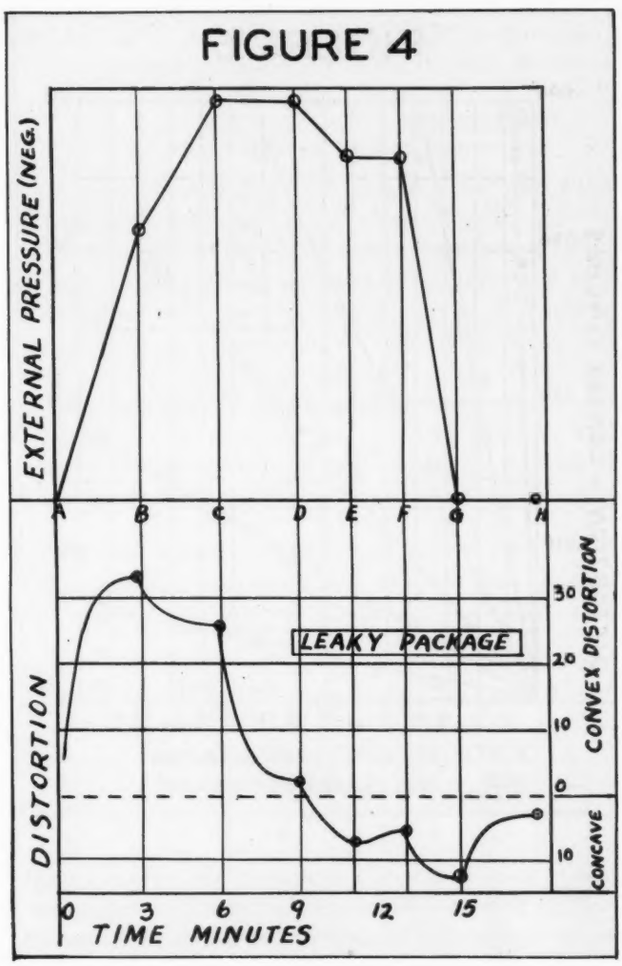
Analysis of curves

The question now arises as to the nature of the equilibria involved. We have noted that at the equilibrium points the slope of the external pressure/time curve changes. At point B it decreases, at C it becomes zero, etc. Obviously the slope of the external pressure/time curve represents the rate of pressure change or *P* over Time and hence a plot of the equilibrium distortion against the rate of pressure change should reveal the relationship involved. Such a plot is shown in Fig. 5. It is worthwhile noting that the degree of distortion per mm. Hg/Sec is considerably less on the concave side than on the convex side. Incidentally, also, concave distortion is not as readily reproducible, probably on account of compressive rather than tensile stresses involved, and consequently concave distortion is not being further considered as a promising criterion.

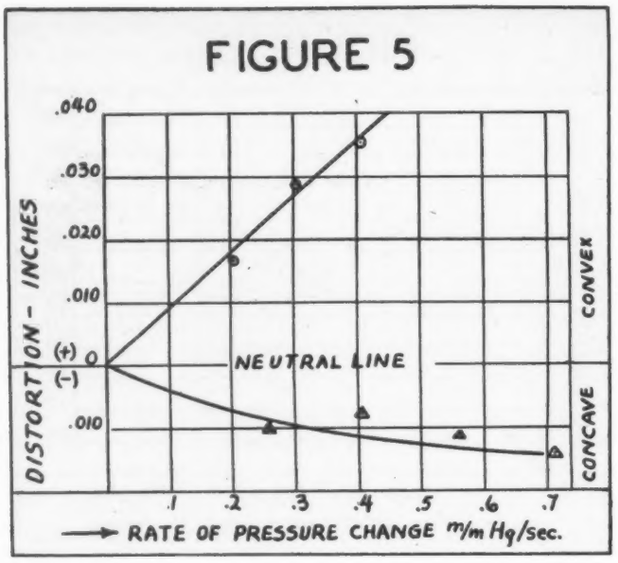
The general relationship between equilibrium distortion and the rate of external pressure change has been verified by many additional tests, so that it may be treated as an experimentally established fact which may be explained and visualized in the following manner: A given rate of external pressure change produces a corresponding rate of volume change in the air confined within the container under test. This internally created surplus air quantity has the same effect as if it had been introduced from without, as in the direct pneumatic test procedure mentioned in the first part of this paper.

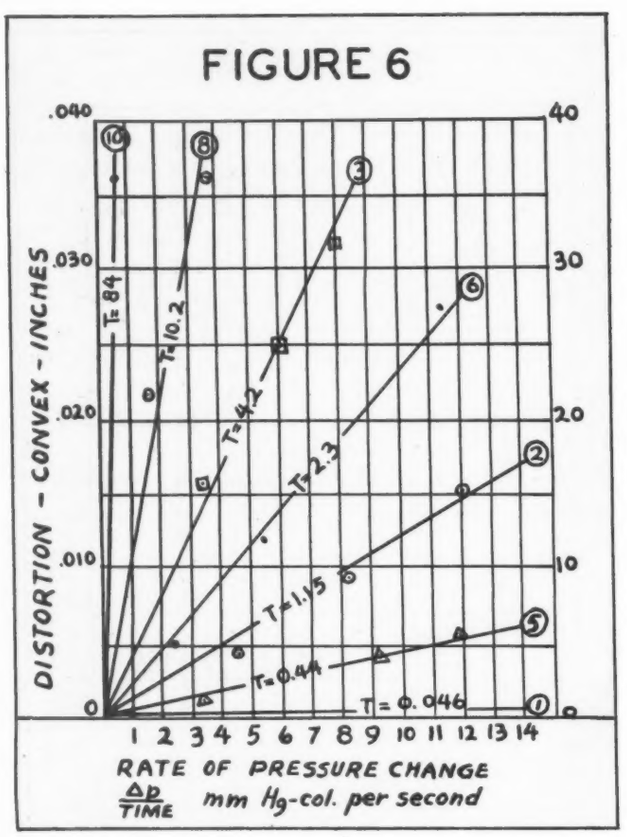
Now, then, if the rate of air expansion, induced by the rate of external pressure change, is greater than the rate of air escape from the container (which is naturally governed by the size of the breathing apertures)—or, in simpler words, if the air is created faster than it can escape—then a back-pressure builds up within the container. This back-pressure—or, better yet, this "velocity head"—increases until a balance between in-put and out-go has been struck, equilibrium is established. The velocity head manifests itself by the distortion of the package and is readily measured in terms of linear dimensions, such as fractions of inches or millimeters, whichever is preferred.





It is important for a clear understanding of the phenomena involved to keep in mind that in the case of the leaky container the observed distortion has nothing to do with static pressure differences between the inside and outside, but rather is independent therefrom and





entirely due to dynamic pressure; the velocity head resulting from the difference between two rates; the rate of expansion of air into the container, and the rate of escape of air from the container.

If stated in this way, it becomes apparent at once that the distortion which may be expected at a given rate of expansion reflects the relative tightness. For example, in a wide-open container the difference of the two rates obviously would be zero and the distortion to be expected would be zero. In a hermetically sealed container, on the other hand, where the rate of escape is zero, even an infinitely small rate of pressure change will, in time, create infinitely large distortion.

In line with these considerations, the general relationship between distortion and rate of pressure change may be formulated as follows:

$$\text{Distortion} = f(T)\frac{P}{\text{Time}}(E) \qquad (2)$$

in which T is a tightness factor and E stands for the unknown elastic properties of the container. If E may be assumed to be constant by virtue of structural identity of the containers, and if experimental evidence proves substantial straight-line relationship between distortion and rate of pressure change, this expression may be written as follows:

$$T = \frac{\text{Distortion}}{\text{Rate of pressure change}} \qquad (3)$$

In this special case, the tightness factor may be called specific distortion and obviously it represents the slope of a straight line which results when distortion is plotted against the rate of pressure change.

It might be inferred from Formula 3 that the tightness factor can be calculated from a single measurement of distortion. For a rough approximation that is quite true. However, in the interest of accuracy and particularly in order to check whether the limitation of straight line relationship is fulfilled, it is desirable to make, at the very least, two measurements and determine the tightness factor graphically by plotting the experimental points and drawing the most probable straight line from the origin through or between the points. The slope then represents the tightness factor.

Procedure

In carrying out individual measurements, the recommended procedure is as follows:

1—With the bell jar removed, the specimen to be tested is laid onto the pump plate with the front panel facing up, taking care at the same time that the air outlet remains unobstructed.

2—The position of the dial indicator is adjusted laterally so that the plunger rests on the geometric center of the panel and vertically so as to bring the expected distortion within the measuring range of the dial indicator.

3—A thin glass or metal disc at least 1 in. in diameter is then interposed between the package surface and the plunger point in order to spread the downward pressure of the spring-loaded indicator.

4—Position the bell jar, the ground sealing edge of which has been covered with a film of stopcock grease.

5—Determine in a rough trial run what position of the throttling valve in the air exhaust line will produce a readily measurable distortion. Run up the vacuum to 200 mm. and check the tightness of the assembly by the constancy of the final vacuum after the shutoff cock has been closed.

6—If the apparatus is tight, open the air inlet valve to re-establish atmospheric pressure under the

bell jar, and after this has been accomplished take the first reading on the dial indicator, which will be recorded as the lower rest point. At this juncture it is to be noted that any reading of the dial indicator must be preceded and accompanied by a gentle vibration of the apparatus in order to relieve any residual stresses which would cause lag. This vibration can be set up by tapping the iron pipe which is connected to the pump-plate or knocking against the bell jar, whichever is found more convenient.

7—On the basis of the trial run, pre-select the appropriate throttle valve position and then open the stopcock. Determine the rate of pressure change by clocking with a stopwatch the travel of the mercury column between any two convenient points and at the same time note the dial indicator reading that corresponds to the average rate of change. For example: if the rate of pressure change is clocked between 50 and 100 mm. pressure, take the dial reading at 75 mm. This is necessary because the rate of change at a given throttle valve setting is not constant but diminishes gradually. (The amount of air pumped out is a logarithmic function of the pressure $V = Vo \log e (\text{PO over} P)$.) This procedure sounds more formidable than it is. With a little practice, the two observations can be made without difficulty even at very high rates of pressure change where the time element involved is only a few seconds.

8—As soon as these two readings have been made, the stopcock is turned off, whereupon the dial indicator will approach the upper rest point, which is taken after two successive readings one minute apart differ by not more than ½-thousandth inch. The arithmetic mean between the lower and upper rest point is the reference level from which distortion is measured.

9—After the stopcock has been opened and atmospheric pressure has been re-established, the cycle of measurements is repeated at a different valve setting.

As a general rule one complete test of three cycles can be readily completed in the space of a half hour, and no extraordinary skill is required.

Fig. 6. illustrates the types of results that can be obtained while Table I gives the numerical values of this series of tests.

Upon examing the data in Table I, the reader will note that the tightness of the seven different packages varies from a low of 0.046 for a commercially tight-wrapped package to a high of 84, which happens to be a hand-wrapped, heat-sealed job of special end-flap construction. A visual examination of these packages would, of course, show a marked variation in the quality of the sealing job. In the low-tightness package, the overlaps would be barely stuck. A knife blade could be readily inserted and the seal broken with little effort. On the tightest packages, on the other hand, the flaps would be so well ironed down that mechanical separation without tearing would be impossible.

The differences between the poorest and best seals, in other words, were qualitatively obvious, but it remained for the test to establish quantitatively the nature of the seals and to reveal less obvious and hidden shortcomings in their workmanship.

As already pointed out, this factor is one of the three major variables in accelerated storage tests of completed package structures. Whenever such structures have a comparatively low impedance value, the error introduced by the unknown and variable "breather action" occurring through faulty seals is of relatively low significance. If, however, the water-vapor impedance of the package wall is extremely high, then the mechanical tightness of the package may become the determining factor in over-all permeability.

This latter condition applies to our case, where barriers of laminated aluminum foil were used as an outer wrap of the packages. Since every one of these packages had been subjected to an accelerated storage test and subsequently tested for mechanical tightness, a comparison between moisture-loss rate and tightness suggests itself. In the interest of clearer presentation, we have plotted the reciprocal of the moisture-loss rate

$$\frac{1}{\text{Grams weight lost per package per week,}}$$

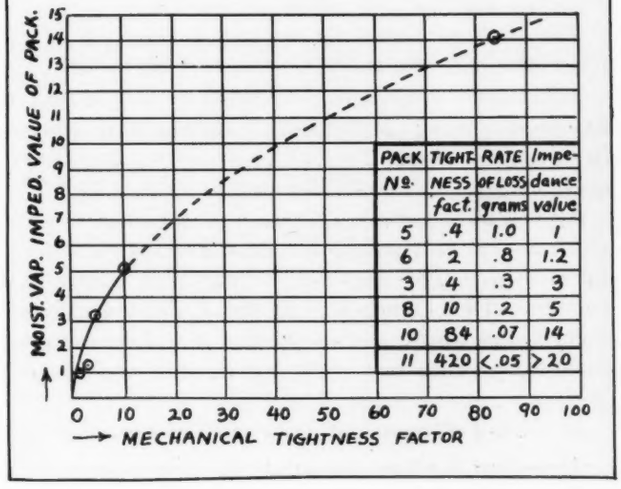
which might be called the *WV* impedance value of the package as a whole against its mechanical tightness.

This is shown in Fig. 7, which demonstrates a clear-cut correlation between mechanical tightness and the water-vapor impedance of the package. The curve originates at zero tightness and zero impedance, ascends rapidly, and from tightness value 10 on approaches gradually a limiting value which should be 1 over *WVTR* of the wall structure multiplied by wall area minus impedance loss due to folding and creasing of the barrier material.

Conclusions

The practical packaging man may at this juncture question the usefulness (*Continued on page 178*)

FIGURE 7



Food packaging studies

1. Durability of certain non-metal materials for bulk packaging*

by R. F. Brooks, Robert E. Thomas and G. J. Hucker

The future possibilities of the non-metal container in food packaging are based on certain well-recognized requirements. The protective properties of the package must be equal to those of metal or at least offer sufficient protection to withstand normal handling and protect the contents from contamination, moisture and water vapor. The problem of durability to withstand handling and shipping must be of first consideration. The problem as to the most effective methods of test for the so-called durability has remained one upon which, as yet, there is no common agreement. Tumbling drums, allowing to fall down a certain number of steel stairs, dropping from various heights, etc., all have their disadvantages and advantages. Any of these procedures may indicate the durability of the final package providing the details of the test are sufficiently rigid to allow a sufficient margin of safety over the requirements of handling of the package under practical commercial conditions.

There is reason to believe that certain non-metal containers may prove practical for bulk packaging of processed fruits and vegetables, particularly those preserved by dehydration and freezing. In most of the commercial packs, the final package generally varies from 30 to 50 lbs., thereby requiring a durable package in addition to moisture and water-vapor protection.

It was the object of this study to determine the relative durability of various types of non-metal packages which might be used for bulk packaging of fruits and vegetables. A total of 412 cartons was tested.

Methods

The package tested for durability consisted of an inner corrugated carton, $13^3/_8$ in. by $6^3/_4$ in. by $13^3/_8$ in., to contain the vegetable, surrounded by the protective bag under study. This combination was then inserted in a fibre carton. Two of these carton-bag-carton units were packed in a wooden case.

A pack of 42 cartons (21 cases) of dehydrated beets and 8 cartons (4 cases) of dehydrated carrots was made for each packaging material. These were stored and conditioned for 72 hrs. at −20 deg. F., at 0 deg. F. at room temperature, and at 90 deg. F. Two cases at room temperature and at 90 deg. F. were also held for 39 days.

At the end of the storing and conditioning period each case was dropped 14 times from a height of 30 in. onto a concrete floor as follows: once on each face, once on each of two diagonally opposite corners and once on each of the three edges adjacent to the two corners on which drops had previously been made. These handling or drop tests were carried out at the same temperatures as those of the storage or conditioning.

The bags were visually examined for breaks or cracks, returned to the fibre cartons and then immersed under a six-inch head of water for 72 hrs. Each carton was then opened and the cartons and bags examined to determine their durability. The package should remain waterproof after this series of tests.

The sheets used for fabricating the protective bags included: (a) triple-laminated cellophane, (b) laminated foil, (c) wax-coated rigid cardboard containers and (d) heavy duty X-Creped sheets.

Triple-laminated cellophane—The specifications for a series of triple-laminated MSAT cellophane sheets were as follows: Basic weight (24 by 36-500), 60.7 lbs.; caliper (0.001 in.), 3.20; bursting strength, 62 lbs.; tensile strength: machine direction, 24 grams, cross direction, 38 grams; stiffness: machine direction, 122 mgs., cross direction, 69 mgs.; porosity, none in 7,200; water-vapor transmission, 0.45; Castor oil penetration, 240 hrs., no penetration; turpentine penetration, 240 hrs., no penetration.

Triple laminated MSAT cellophane bags of this type were not successful in protecting bulk vegetables when fabricated to carry from 11 to 20 lbs. Twenty-eight of the 50 bags tested failed to some degree. The failures were particularly noticeable at the lower temperatures.

At the lower temperatures, particularly at −20 deg. F., the drying out and brittleness of the cellophane appeared to be the chief cause of failure of the bag to

This is the first of a series of four articles reporting on studies of non-metal bulk packages for fruits and vegetables, covering durability and water-vapor protection and with particular reference to frozen and dehydrated foods. The studies were conducted at the New York State Experiment Station, Geneva, N. Y.

* Journal Paper No. 655, New York State Experiment Station, Geneva, N. Y.

withstand immersion following storage and handling. Cellophane of this type might well be, and is, effective in protecting a hard even surface with lower weights and smaller packages, particularly the commercial unit package not exceeding a total weight of approximately one pound.

Laminated foil-asphalt-kraft paper sheets—The basic specifications of a laminated foil-kraft-paper sheet were as follows: 40-lb. kraft; asphalt compound, 25 lbs.; lead foil, 0.001 in. (alloy lead); special adhesive, 0.00015 in.; cellophane, moisture-proof heat-seal, 0.0011 in. extra heat-sealing coating, 0.00015 in.

It was found that 30 bags out of 50 failed to protect the vegetables following the tests outlined above. In those cases in which the bags were stored and test-handled at −20 deg. F., 8 of the 10 bags split at the corners. It appeared evident that this commonly occurring split was due to the pressure exerted by the corner of the enclosed carton when the outer wooden case dropped, since the bag corner showing the split was diagonally opposite one corner on which the carton was dropped in the majority of cases. Only two bags in this series failed to show considerable damage and the contents of these were not protected during immersion. Pinhole breaks could be noted when the corners of the bags were examined after the test.

The series stored and test-handled at 0 deg. F. showed no greater resistance. Tests on three cartons showed the same type of damage as found in the cartons stored at −20 deg. F. The vegetables in twelve bags that showed no visible damage were not protected following three hours' immersion. At room temperature, 13 of the 14 bags appeared to be in good condition but at 90 deg. F. four of ten cartons failed.

The inability of this type of sheet when fabricated into a bag for bulk packages to withstand rough handling at low temperatures appears to be one of its chief difficulties. At room temperatures, although its resistance is much increased, it still remains vulnerable to an excessive amount of rough handling.

Heavier sheets of this laminated foil type were studied. This sheet (A15) consisted of a 30-lb. X-Crepe kraft paper impregnated with 15 lbs. of a resin solution with a finished weight per ream (24 by 36 by 480) of 80 lbs., laminated with not less than 15 lbs. per 3,000 sq. ft. of an asphaltic base compound (minimum melting point 240 deg. F.) to a sheet of 30-lb. northern machine-finished kraft paper. This combination was, in turn, laminated as above to a sheet of lead foil (0.005 in. commercial thickness), then thermoplastically laminated to a cellophane base sheet (minimum 0.0015 in. commercial thickness), and coated with a heat-sealing compound (minimum 2 lbs. per 3,000 sq. ft.).

Another bag (A16) was prepared identically with the A15 with the exception that a cellophane base sheet, minimum 0.001 in. commercial thickness, was used instead of 0.0015 in.

Twelve cartons (6 cases) using the A15 type bag were tested. Eight of these cartons were stored and dropped at −20 deg. F. and four stored and dropped at room temperature. Upon general visual examination, all appeared satisfactory following this test. A detailed examination evidenced small pinholes at various corners on certain of these bags, indicating again that this heavy type of laminated bag, even though materially strengthened and re-inforced, was not resistant to the type of treatment to which the bags might be subjected in commercial use. A series of similar tests on the A16 modification also indicated general failure of protection at the lower temperatures.

Further studies on foil laminated bags indicated that a substitution of a bond (20B3) paper for kraft and a special adhesive (G82) for the asphalt, with a 30-lb. creped kraft as an interlamination, considerably increased the durability at room temperature. Twelve cases of bulk beets packed and submitted to the routine as outlined above indicated that none of these modified sheets resisted water when immersed, following conditioning at room temperature and at −20 deg. F. In those instances in which reinforcing of the corners by special taping was carried out the durability of the bag was materially increased.

Wax-coated rigid containers—In contrast to the carton type of package is the coated or dipped semi-rigid fibre container. Two types of these containers were studied; viz., a double and a single container type. In both types, the dehydrated vegetables were contained in an inner chipboard carton.

The double container consisted of a fibreboard box (weight, 144 lbs. per 1,000 sq. ft.; bursting strength,

TABLE I—THE PROTECTIVE EFFICIENCY OF DOUBLE-CARTON WAX-DIPPED RIGID CONTAINERS IN BULK PACKAGING OF VEGETABLES

Pack		*Test*			*Type of examination*	*No. of cartons tested*	*No. of cartons*		*Total No. of Cartons*	
Vegetable	*Wt.*	*Temp.*	*Time*				*Passed*	*Failed*	*Passed*	*Failed*
	Lbs.	*° F.*	*Hrs.*							
Beets	19	90	72	Dropped 14 Times	Immersion	5	2	3	..	..
Beets	19	90	936		Visual	4	4	0	6	3
Beets	19	70	72		Immersion	6	5	1	..	..
Beets	19	70	936		Visual	4	4	0	..	..
Carrots	11	70	72		Immersion	4	4	0	13	1
Beets	19	0	72		Immersion	10	9	1	..	..
Carrots	11	0	72		Immersion	6	6	0	15	1
Beets	19	−20	72		Immersion	10	4	6	4	6
								TOTAL	38	11

145 lbs.; tensile strength: MD, 140 lbs. per in., CD, 55 lbs. per in.; fibreboard permitting 65% penetration through board thickness on a 6 in. by 6 in. by 0.040 in. piece using wax at 185 deg. F.) dipped twice in a high melting point wax mixture (softening point, 135 deg. F., minimum; liquefying point, 210 deg. F., maximum) and inserted in a second fibre box which again was twice dipped in the same wax mixture. Two of these double dipped, double cartons were then included in a wooden case. The single container type was similar with the exception that only a single carton dipped twice was used.

Fifty cartons were prepared using the double carton procedure, fifty using only single carton with double wax dipping. Test was conducted similar to above.

In the case of the double carton procedure (Table I) eleven of the 49 cartons examined failed in complete protection or showed visible signs of breakage upon examination. Only four cartons showed protection following storage and testing at −20 deg. F. However, when stored and dropped at 0 deg. F. all but one of 15 double cartons protected the packaged vegetables.

The duplicate series in which only a single carton was used with a double wax dip was studied. By this procedure an insufficient protection was provided, as 43 out of the 50 cartons failed under the test procedure.

As a result of these experiments, it is obvious that if the wax-dip pack is to be used in bulk packaging, two cartons, both double wax-dipped, must be specified. However, some difficulty with this package may be encountered at low temperatures.

Heavy-duty creped bags—Impregnated creped kraft bags have been used for some time as protective packages for heavy bulk material requiring moisture protection. Two hundred and four of these bags of various types and modifications were studied.

As a preliminary study 50 bags were prepared from asphalt impregnated X-Creped sheets and fifty with an additional foil lamination were studied. All had asphalt closures. Majority failed due to brittleness at low temperatures and cracking of the closures.

The X-Crepe bag was materially modified in the light of these results and five additional types of X-Crepe bags were prepared. These bags were (a) Triplex (1A) with latex seams and closure; (b) same as 1A with foil lamination; (c) Triplex (2A) with resinous seams and latex closure; (d) same as 2A with foil lamination; and (e) Triplex (3A) with asphaltic sealing throughout. The test procedures, in general, were those as outlined above with the exception that only one temperature, −16 deg. F. for 24 hrs., was used as a conditioning temperature.

It was noted that bags 2A and 3A showed considerable promise for general bulk packaging. However, in all cases in which foil appeared as one of the laminations, the percentage of failures from the standpoint of waterproofness was greatly increased. It was noted also in the entire series of bags that there was an absence of channeling when a latex closure was used for asphalt.

Another 24-carton series of the 2A type was studied at temperatures ranging from −20 deg. F. to 120 deg. F. The treatment extended over a period of 72 hrs. followed by the handling procedure outlined above. All of the cartons were then immersed for 24 hrs. and the contents of the packages examined for condition.

TABLE II—EFFECT OF STRAPPING ON DURABILITY OF WOODEN CASES

Type of strapping	*Position of strapping*	*No. of drops before failure*
0.072″ wire	2½″ from ends, around girth of case	14
⅜″ × 0.015″ strap	As above	
0.072″ wire	1½″ from ends, around girth of case; around ends at center, perpendicular to grain of end pieces	21
⅜″ × 0.015″ strap	As above	41
⅜″ × 0.015″ strap	As above, but girth straps 2½″ from ends	27
0.072″ wire	2 girth wires, 2½″ from ends; 2 end wires, 2½″ from sides and perpendicular to grain of end pieces	25
⅜″ × 0.015″ strap	As above	23

It was found that in only one instance in which the X-Crepe with resinous seam and latex closure was used was a failure noted. Repeated examination of this particular bag was not productive of showing the causes for this failure. No pinholes were noted, the closures appeared intact, and cause of failure is still unknown.

In all of the above studies, the standard Type I wood packing case specified by the U. S. Army Quartermaster Corps was used, with the usual (0.072 in.) round wire binding approximately 2½ in. from each end of the case. It soon became apparent that this method of casing was not sufficiently durable to withstand the rough handling expected under ordinary shipping conditions; many of the cases shattered in the drop test.

Accordingly, a series of tests was made to determine whether the Type I case could be strengthened to protect the contents better. Standard packs were made in the usual manner and strapped in various ways and then dropped by the regular procedure until the case completely failed (Table II).

It is evident that the most durable outer case is provided when a binding is placed around the ends of the case running perpendicular to the end-piece grain.

Conclusions

(a) None of the non-metal containers studied was as effective as metal in the packaging of vegetables.

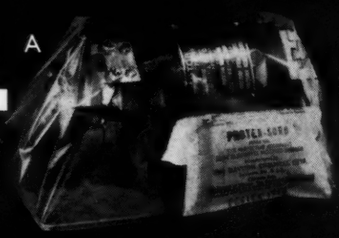
(b) Of the non-metal sheets, the asphalt impregnated X-Creped kraft with latex closures showed the most promise. An additional lamination of lead foil materially enchanced the efficiency from the standpoint of water-vapor transmission, but impaired the durability on rough handling.

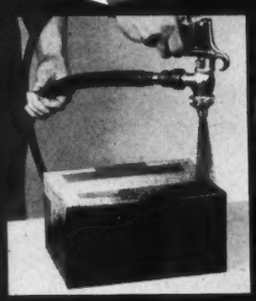
Acknowledgment is given to the Eastman Kodak Co., Rochester, N. Y., for the use of conditioning rooms.

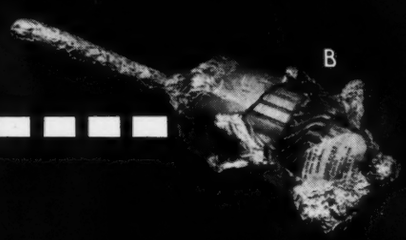
Davison Service

eliminates losses . . .

due to moisture damage







in all climates

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Davison Field Representatives are at your service without obligation to solve every packaging problem involving the prevention of mildew, mold, rust and corrosion to goods between your factory and the consumer regardless of climate.

A: Dehydrated Packaging using Protek-Sorb* silica gel as the desiccant and transparent barrier.

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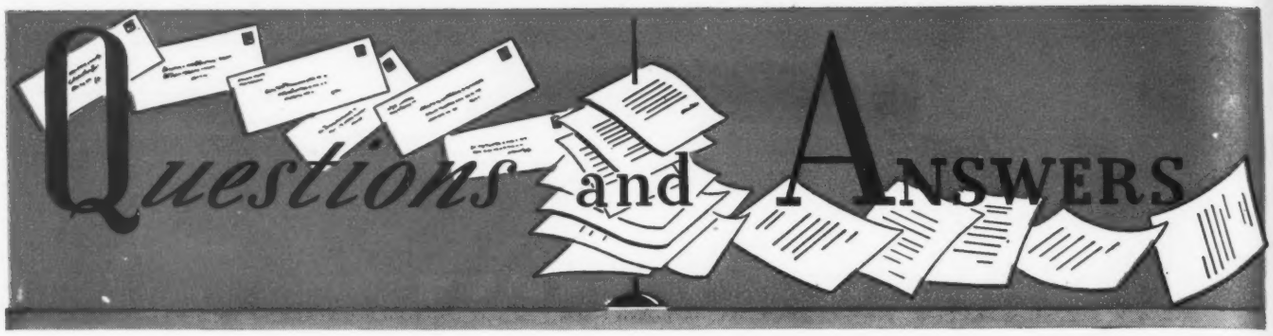

This consultation service on packaging subjects is at your command. Simply address your questions to Technical Editor, Modern Packaging, 122 East 42nd St., New York 17, N. Y. Your name or other identification will not appear with any published answer.

Coated fabrics for bags?

Question: Do you know of any use, actual or potential, of coated fabrics in industrial, agricultural or commercial bags? We would like to know if pyroxylin or vinyl- and rubber-coated fabrics fit anywhere in the present day bag markets.

ANSWER: A review of all sizes of shipping bags used commercially and during the war show no applications of coated cloth. Certain uncoated cloths are used for imparting strength characteristics to multiwall shipping bags as liners or overslips. In this case the cloth is used entirely because of its high tensile strength and durability. In these cases, the treated paper structure provides the waterproofness, moistureproofness and other qualities.

The reason coated cloths are not used to obtain functions other than physical strength and durability is because the nature of the structure does not make it suitable as a base for the application of the coating. Cloth as a base for coating suffers the disadvantage of being absorptive, not mechanically flat and smooth and having surface fibres.

Treatments such as calendering, sizing, singeing, etc., are used which will reduce somewhat these undesirable characteristics but they add to the cost and yet do not provide a base which is comparable to a properly prepared paper surface for the efficient application of resinous or waxy or any other type of coating or film-forming material. Paper, on the other hand, can be cheaply and readily prepared as a base for coating and with relatively small amounts of material the surface films may be laid down which have excellent waterproofness, water-vapor resistance, greaseproofness, heat sealability, etc.

For the same reason, cloths do not lend themselves well to laminations or combining to other materials except where the addition of durability is the only requirement.

One exception to the foregoing appears to be a use of a coated cloth as in a waterproof case liner. Such a structure is available commercially and is based upon a strong high count cloth which has been treated and coated with a heavy layer of a pigmented, flexible coating. This material is quite expensive but it can be fabricated by special adhesive and techniques into structures which all tests have shown to be excellent waterproof case liners. This particular structure has the virtue of having a high rate of water-vapor transmission which some authorities feel is a vital consideration for material for this use.

Packaging sterile bottles

QUESTION: We are contemplating a bottle sterilizing business and our most difficult problem is the packaging. We must have a paper that is transparent and will withstand the heat of sterilizing temperatures similar to the processing of surgical dressings, owing to the fact that to have a sterile package it must necessarily be wrapped before sterilizing.

ANSWER: There is no paper which will fulfill all of your requirements; that is, transparency, durability in handling around a bottle and ability to be sealed for the maintenance of sterility of the contents. Papers of the glassine type are quire transparent and also have been used for dry sterilization of gauze bandages and similar products.

In general, these units are small sizes and will subsequently be packaged in a paper carton or box to protect them from excessive handling. However, no paper structure of this type would stand high temperature wet sterilization or be sufficiently durable for handling if it were sealed around a bottle or some similar large, heavy object.

The material which would seem to be best suited for your purpose would be a viscose type cellulose film package, described in MODERN PACKAGING on page 132 of the April issue. This story describes a package of the type you desire made of such a cellulose film which withstands high temperature sterilization and which is transparent and very durable.

I suggest that you contact the companies mentioned in this story for further details, samples, of their material, etc.

The hat she wants . . . AT A GLANCE

In their homes . . . in your store . . . Eastman Acetate Sheet helps your customers make the right choice

Individual "showcases" of heavy-gauge Eastman Acetate Sheet do more than help *you to sell.*

Because their sparkling optical clarity shows your products clearly, at their most attractive best, untarnished by dust or shopwear, they help *your customers* to see your stock . . . to choose . . . *to buy.*

And because these "showcases" are heavy gauge, designed for long wear, they make it easy for your customers to choose from their own "stock," day after day, in their own homes.

Eastman Acetate Sheet is supplied in rolls or sheets, in various gauges, and in three types—clear transparent, matte, colored translucent. It can be drawn, beaded, creased, folded, crimped, stapled, joined with solvent- or glue-type adhesive. Beautiful printed effects are readily obtained. These qualities, plus its toughness, dimensional stability, and transparency, make Eastman Acetate Sheet an ideal answer to modern packaging problems.

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WASHINGTON REVIEW

● **Coal Strikitis**—It is difficult to evaluate fully the effects of the coal strike upon the industries making various containers and the industries which use them.

It is pretty clear, however, that there have been definite losses in production at a time when the industries were just getting under way, particularly in the production of packaging materials for food.

Tinplate mills probably were in better shape than any other segment of the container industry, since the price of plate for cans is more attractive to steel mills than that for other products and since the can makers and plate makers had assured the Dept. of Agriculture that they'd run their mills right up to the last ton of coal.

However, the biggest single unit in the tinplate field, Carnegie's Gary plant, had to cut down on production during the strike. There was production lost in other mills, too, because of power.

Even at the time of the "truce" in the coal strike, steel companies and can companies advised Agriculture Dept. that they would only have enough plate to keep on making cans, (1) the smaller companies until June 1, (2) the larger ones up to 15th of June. But, they warned, if they had to shut down further because of the lack of power, and had to restart coke ovens all over again, it would take from 6 to 8 weeks to get back into full production, meaning a loss of at least 4 weeks.

● **Canners' Gains May Be Lost**—It appears now that the provisions of M-81 may be cut because of the loss in production. A reduction up to 10% of currently unlimited users of tin and further tightening of restricted items seems probable.

One good sign in the picture is that the export of 110,000 tons of plate scheduled for May and June has been delayed and rescheduled for June through September.

This development is a result of the protests of Agriculture Dept. and the industry, over the objections of Commerce Dept., State Dept. and CPA. It now appears that exports of plate—June through September—may not amount to more than 25,000 to 30,000 tons.

● **Trademark Action**—After more than eight years of effort to get the country's trademark law modernized, Rep. Fritz Lanham is now nearer his goal than at any time since he began the fight. Since the measure was reported out by the Senate Patents Committee last month, its author has been trying to line up sufficient support behind the legislation to bring it up for a vote—and passage—on the Senate floor. He hopes to have the bill enacted before Congress goes home for the summer on July 10. If he is unsuccessful, the bill will go right back where it has been every time for eight years.

Passed several times by the House, the bill's report by the Senate committee in the current Congress marks its highest tide to date.

Lanham's bill has the support and cooperation of industry and the backing of many organizations—among them the powerful National Assn. of Mfgrs.

Briefly, the bill would:

1. Recodify all Federal trademark provisions.
2. Adapt trademark protection to modern conditions, rather than the old concepts of business.
3. Make trademarks incontestable after five years of continuous use.
4. Provide for registration of "secondary meaning" marks.
5. Permit "concurrent" registration of the same or similar marks where two or more users have in good faith adopted it in different parts of the country.
6. Permit assignment of trademark without assignment of entire business with which used.
7. Simplify registration process.
8. Adapt domestic law to treaty obligations to which the U. S. is committed through membership in the International Union for the Protection of Industrial Property and ratification of the Washington Pan-American Convention of 1929.

● **Can Shipments**—Total shipments of metal cans during February this year showed a 27% decline from January, Census Bureau reports. During February, metal can shipments amounted to 132,530 tons, as compared with 181,396 tons shipped in January. The decrease was largely attributable to unsettled labor conditions in metal can fabricating. However, February shipments were still substantially above the February shipments for 1943 and 1944, although below the total for February last year.

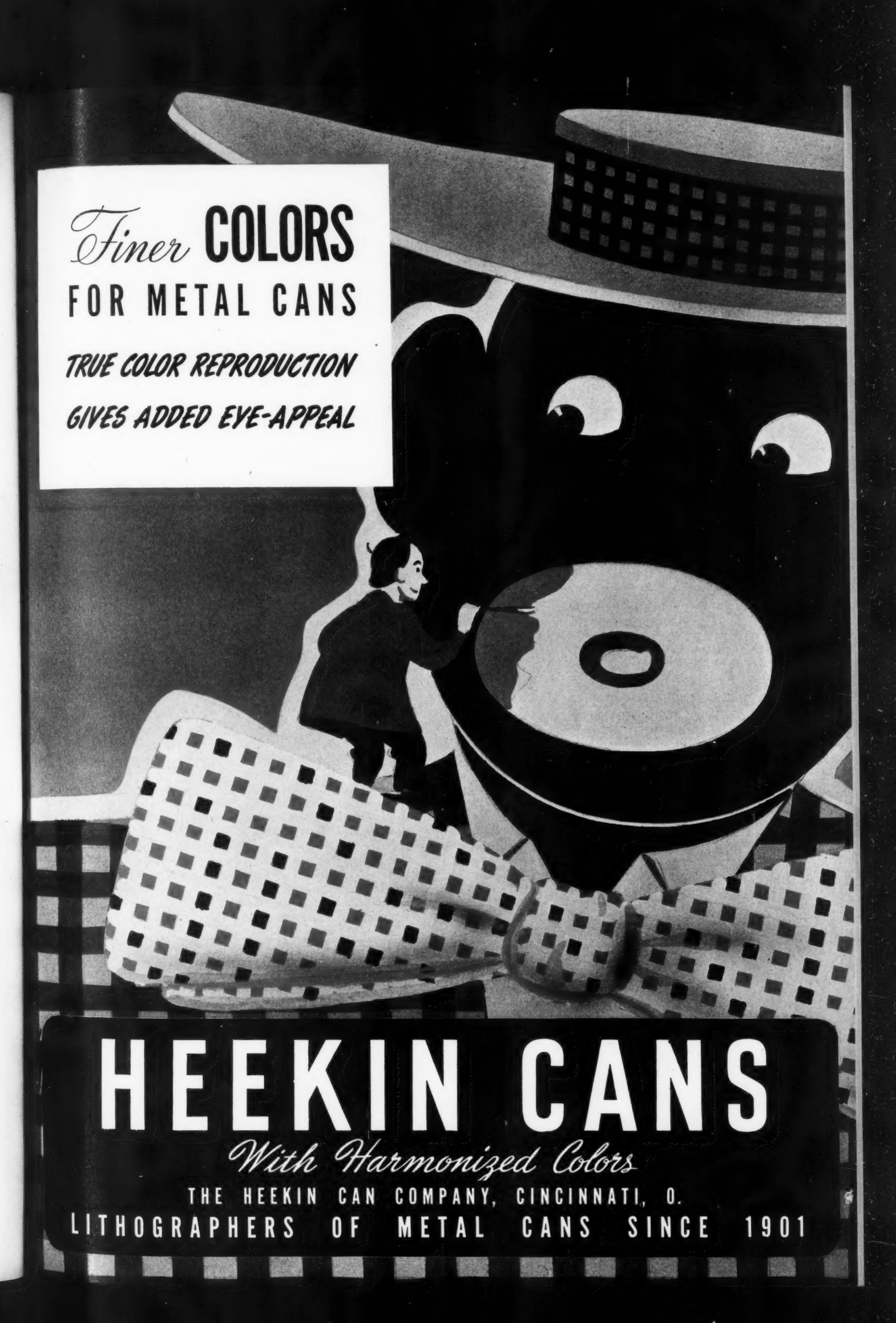
● **Milk-Bottle-Stock Ceiling**—Manufacturers' ceiling prices for "milk-bottle-stock" paperboard have been established on a uniform dollar-and-cent basis at the highest "freeze" ceiling heretofore in effect. The action, according to OPA, was discretionary to maintain production, and made no change in the price ceiling of one producer who accounts for approximately 40% of production, but it raised the ceilings of other producers.

● **Pulp Ceilings Upped**—Production of wood pulp should begin to loosen as a result of the OPA action in increasing ceilings for pulp producers by about 10%. In announcing the action, OPA said: "The CPA recently recommended that OPA take whatever action was found necessary to assure availability of essential wood pulp. The price increases, which are discretionary and not mandatory under the Price Control Act, are OPA's answer to CPA's recommendation."

At the same time, OPA has given northeastern U. S. producers of pulpwood more leeway in negotiating prices for subcontracting services to facilitate production.

● **Shook Increased**—Because of the near-desperate need for shook for the fabrication of fruit and vegetable containers, OPA has granted an interim discretionary increase of $7.50 per 1,000 bd. ft. in manufacturers' ceilings (as forecast on this page last month.) However, the increase may be changed later following completion by OPA of a cost and earnings study of the shook industry.

● **Food Labels Scarce**—There is a threatened curtailment of delivery of processed foods due to an acute shortage of labels. At a recent meeting it was decided to make application for relief to the Production and Marketing Administration of the Dept. of Agriculture. Principal cause of the shortage, in addition to the overall shortage of woodpulp, is the inability of paper mills to produce and deliver adequate quantities of label paper. Grades of paper used for labels are not being manufactured in quantity because of the shortage of coatings and because several mills which produced them have passed into the hands of publishers and other users.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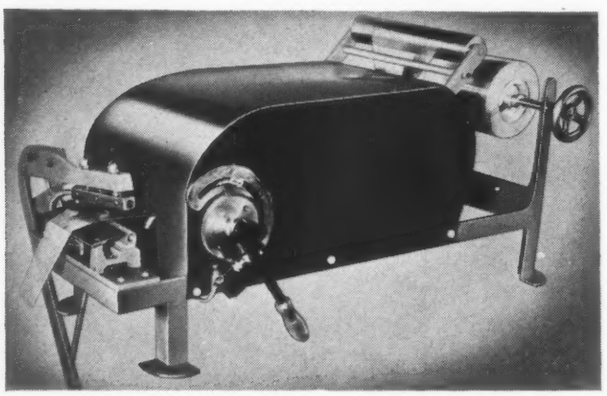
Equipment and Materials

BAG AND ENVELOPE MAKING MACHINE

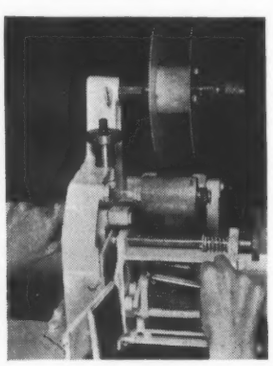
A low-cost, manually operated machine has been developed by Heat Seal-It Co., Philadelphia, Pa., for fabricating bags and envelopes from cellophane and other heat-sealable materials. This



hand operated machine requires no experience to set up or operate, according to the manufacturers. It will make approximately 15 to 20 bags per min. in a range from 2 in. up to 6 in. wide and from 2 in. up to 12 in. long. Five seconds is all that is required to make adjustments for length changes, while only a few minutes is required for width changes. Additional former plates are supplied in $^1/_8$ in. variations. Automatic, thermostatic heat control maintains correct temperature at all times. Attachments for making duplex or double wall bags, as well as tuck side or gusset bags, are also available.

IMPROVED LABEL IMPRINTER ATTACHMENT

The modern method of merchandising pre-packaged produce, meat, baked goods and dairy products, in transparent packages has created the need for a means of applying labels to these packaged items which would clearly indicate the nature of the contents, the quantity contained, unit price and other data for consumer information. The Oliver Machinery Co., Grand Rapids, Mich., along with their special wrapping machines developed a label imprinter which, when fed rolls of partially pre-printed labels, would imprint the data of packaging and price of a particular item. This method, however, necessitated the keeping in stock of rolls of labels for each item packed. For example, if a company packed fresh produce, there might be as many as 50 or more varieties which would mean stocking rolls of labels for each of these 50 varieties. Storage and inventory presented quite a problem.



The new imprinter is fed the labels in roll form, with only the basic information such as the name of the packer pre-printed, and then in a matter of seconds the logotype for imprinting all the other information such as the name of item, weight, price and code number may be changed—without removing the roll of labels—and changes in logotype may be made as many times as is desired until the roll is completely used. This method also obviates the stock-keeping of rolls of labels for each different variety. Logotypes may be changed in a few seconds, as often as desired, without loss of labels or even changing the label roll.

SATCHEL BAG PACKAGING MACHINE

The Fred Goat Co., Inc., Brooklyn, N. Y., announces an improved high-speed satchel bag packaging machine with several interesting features. Newest of these is the hopper which will accommodate both non-free-flowing as well as free-flowing powders.

In operation, this machine makes the bag from a continuous roll of paper; fills it by means of a volumetric measuring device accurate to within $^1/_{32}$ oz.; closes the bag with a siftproof closure; inserts the bag into a carton, with circular if desired; seals the carton and delivers the complete package at the rate of 45 per minute. One attendant can supervise the entire operation of this machine, it is said. A unique crimp and double fold forms the closure which, the manufacturers further state, makes a strong, absolutely siftproof bag without gluing, heating, stapling or sewing.

Such products as gelatin, and various other powdered foods are said to reach the customer full and fresh, neither partially emptied by leakage nor dehydrated by air infiltration.

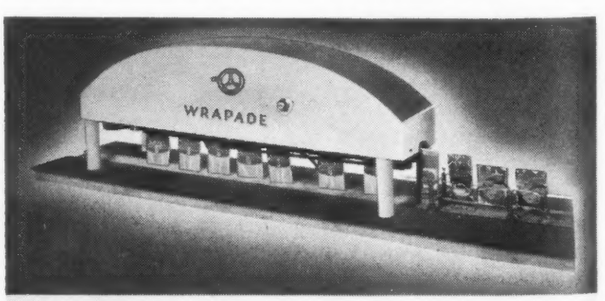
MANUFACTURER-DISTRIBUTOR ROTARY HEAT SEALERS

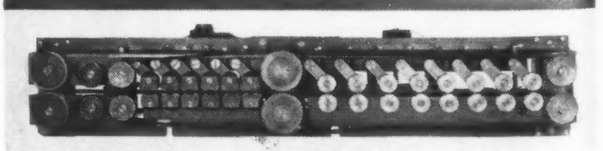
Doughboy Industries, Machines Div., New Richmond, Wis., manufacturers of the Doughboy rotary heat-sealing machines, announces that it is now the primary distributor and sales agency for this equipment. Heretofore, the Pack-Rite Co. of Milwaukee was sole distributor.

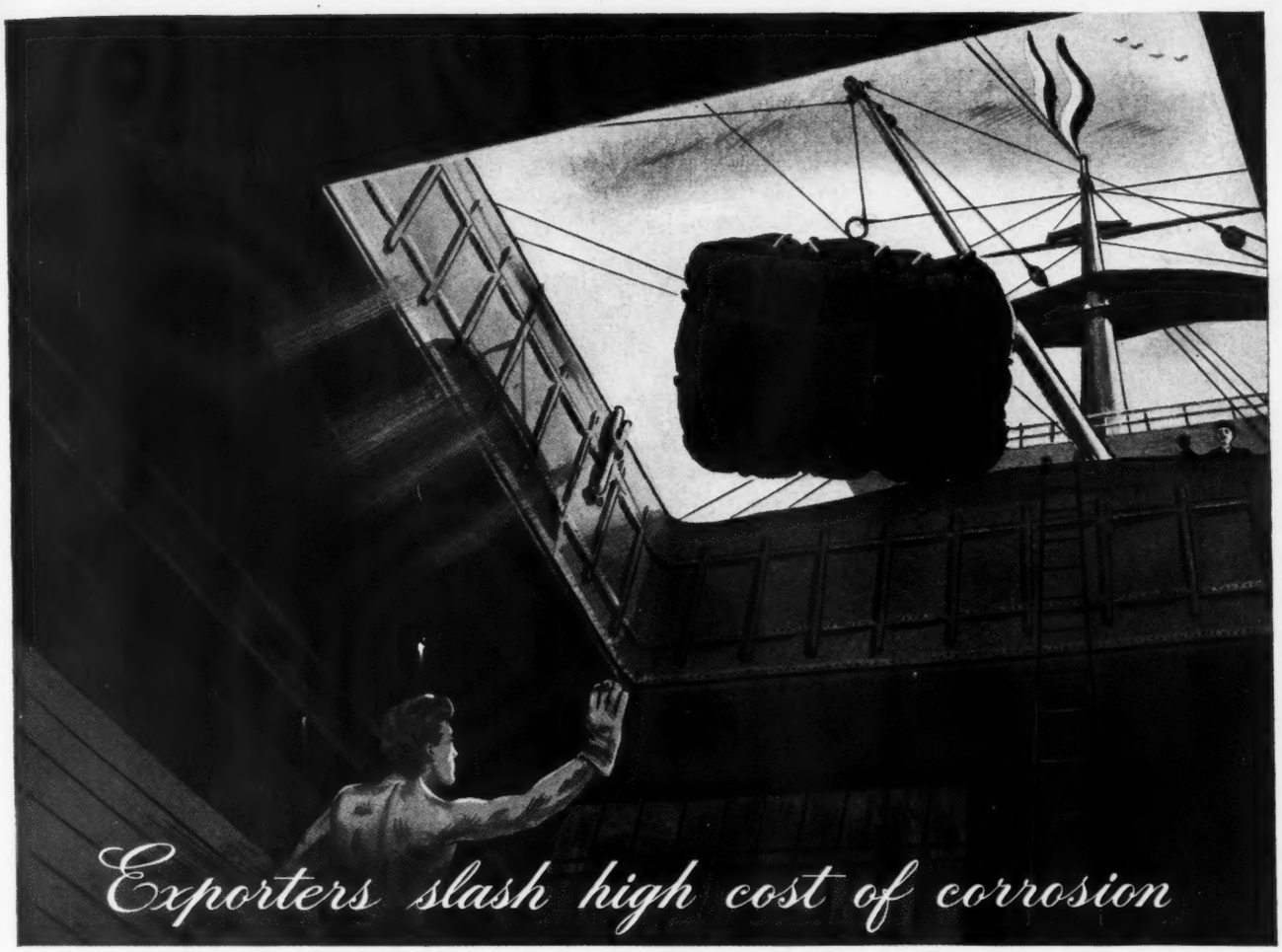
The company, at a recent exposition, announced its new magnetic heat-sealing machine—a jaw-type unit which, with one automatic operation, seals the bag and label and punches a hole for display purposes.

CONTINUOUS HEAT SEALER

Wrapade Machine Co., Brooklyn, N. Y., announces the availability of its new, continuous heat sealer. The completely automatic machine will seal from 40 to 140 bags per minute based on bag size, height and weight of contents. Moisture-vaporproof closures may be effected on any heat sealable bag and, if so desired, top of bag may be folded over. Readily adaptable to most packaging lines, the sealer is equipped with variable speed drive to synchronize with any type of filling machine, and because of its high speed, the manufacturers claim, it can handle the production of two filling machines. Ruggedly constructed, the machine is stream-lined in appearance and is equipped with safety devices for the protection of persons working around it. All parts are easily accessible. Accompanying photographs show machine in actual operation, as well as bottom view of mechanism.







Today many exporters of airplane engines, aircraft instruments, carbureters, radio equipment and other corrodible products are turning to Plastin as the *economical* protective packaging material . . . the material that affords *positive* protection against costly corrosion, and does it in a simple, low-cost manner.

By using Plastin bags or liners exporters eliminate the costly, labor-consuming process of applying, and later removing, greasy compounds. They need no special inner bags or boxes. They simply pack their clean-surfaced products in Plastin containers with minimum amounts of silica gel, heat seal the container and ship with the assurance of complete, positive protection against moisture-vapor corrosion.

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Plants and People

Charles L. Condon, New York packaging consultant, has been appointed advertising manager and art director for **Thomas M. Royal & Co.,** Philadelphia, manufacturers of flexible containers, printed sheets and rolls made from papers, films and foils.

C. L. Condon

E. A. Throckmorton, formerly vice-president of Container Corp. of America, has been elected president of Container Testing Laboratories, Inc. Expansion of the laboratories' services in New York, Chicago and San Francisco is planned, and Theodore J. Gross, acting president, will be vice-president in charge of all testing and technical activities at the three laboratories. Mr. Throckmorton will continue to be of service to Container Corp. on a retainer basis.

J. H. Gilluley, of Anchor Hocking Glass Corp., was elected to the Board of Directors of the Packaging Institute to fill the unexpired term of John S. Algeo, resigned.

Directors of **Sylvania Industrial Corp.** and **American Viscose Corp.,** both of New York, have approved a proposal for the merger of the two firms. The transaction is subject to execution of a formal agreement and majority vote of stockholders in both companies.

Proposed acquisition by the **Owens-Illinois Glass Co.** of the business and assets of the **Kimble Glass Co.** was recently approved by the Federal District Court in Toledo. Kimble Glass is engaged primarily in the manufacture of tubing and cane and the fabrication of products therefrom.

Claremont Paper Corp. has acquired the paper mill formerly operated by the **Claremont Paper Co.,** Claremont, N. H. **William A. Kirn, Sr.,** will continue as president of the new corporation. Other officers are **James H. Molloy** and **John D. Wilson,** vice-presidents, and **R. B. Gerard,** treasurer.

Harris-Seybold Co., Cleveland, Ohio, makers of printing machinery, have announced the re-organization and expansion of their Eastern district. Three new branch managers have been appointed: **S. E. Arnett,** New York metropolitan area; **J. C. Doty,** New England area; and **R. H. Randall,** Philadelphia area. **W. I. Claire** has been appointed Eastern district office manager.

Plastics Guild Corp., Paterson, N. J., has entered the transparent film printing and processing field.

A. P. Mitchell has been appointed general sales manager of the **Riegel Paper Corp.,** New York.

The Dobeckmun Co., Cleveland, Ohio, announces an expansion program involving a new factory building in Berkeley, Cal., and an addition to the Cleveland plant at 3301 Monroe Ave.

International Plastic Corp., Morristown, N. J., makers of pressure-sensitive tapes, announce the appointment of **Walter J. Dreves** as director of finance and controller, **Thomas F. Plummer** as production manager, and **Dr. Jan Teppema** as director of laboratory operations.

Donald D. Pascal has been elected as assistant vice-president of **National Starch Products, Inc.,** New York.

I. F. Schnier Co., West Coast distributors of **Armstrong** closures and **DuPont Cel-O-Seal** bands, has established a Seattle office. **Thomas B. Hill** will manage the new office.

T. B. Hill

John Birrell, formerly acting manager, has been appointed manager of the adhesives industry department of **Stein, Hall Co., Inc.,** New York.

John H. Prout, formerly wih **Harris-Seybold Co.,** has joined the Detroit office of **Acme Steel Co.,** Chicago. Acme Steel recently acquired the **Morrison Stitching Machine Div.** of **Harris-Seybold Co.**

W. Paul Stillman and **L. D. Barney** have been elected to the board of directors of **Union Bag & Paper Corp.,** New York.

Gardner-Richardson Co., Middletown, Ohio, boxboard and folding box makers, announce the election of the following new members to the board of directors: **Colin Gardner, 3rd, E. T. Gardner, Jr., A. R. Harvey** and **C. H. Avery.** New among the officers of the company are **W. B. Turner,** chairman of the board, and **E. T. Gardner, Jr.,** treasurer and assistant to president. **M. S. Johnston, Jr.,** succeeds **Alan D. Crowley** in advertising.

New colored and decorative finishes for aluminum were displayed at the Biltmore Hotel, New York, on May 9 in connection with a press showing of the new **Aluminum Co. of America** motion picture **"Dateline Tomorrow."** Drawn containers and tubing colored by the **Alumilite** process were suggested for packaging.

American Machine & Foundry Co.'s bakery sales division announces the assignment of the New England territory to **Harry Rittmeyer** and the Southeastern territory to **E. D. Kelly.**

Gerry Powell, typographic director of **American Type Founders,** Elizabeth, N. J., has opened an office at 522 Fifth Ave., New York, to extend his activities in packaging and product design.

Formation of **Paper Center, Inc.,** for the merchandising of printing, packaging and specialty papers, has been announced by its president, **Bernard H. Ross.** Temporarily located at **126 E. 59 St.,** New York, the company will occupy its permanent quarters at **18 John St.** soon.

V. W. Moody, Jr., has been named assistant to **G. S. Nagle,** assistant vice-president in charge of manufacturing, foil division, **Reynolds Metals Co.**

Burton F. Stauffer has retired as president and general manager of **American Anode, Inc.,** Akron, Ohio, affiliate of **The B. F. Goodrich Co. Dr. Robert V. Yohe** succeeds Mr. Stauffer.

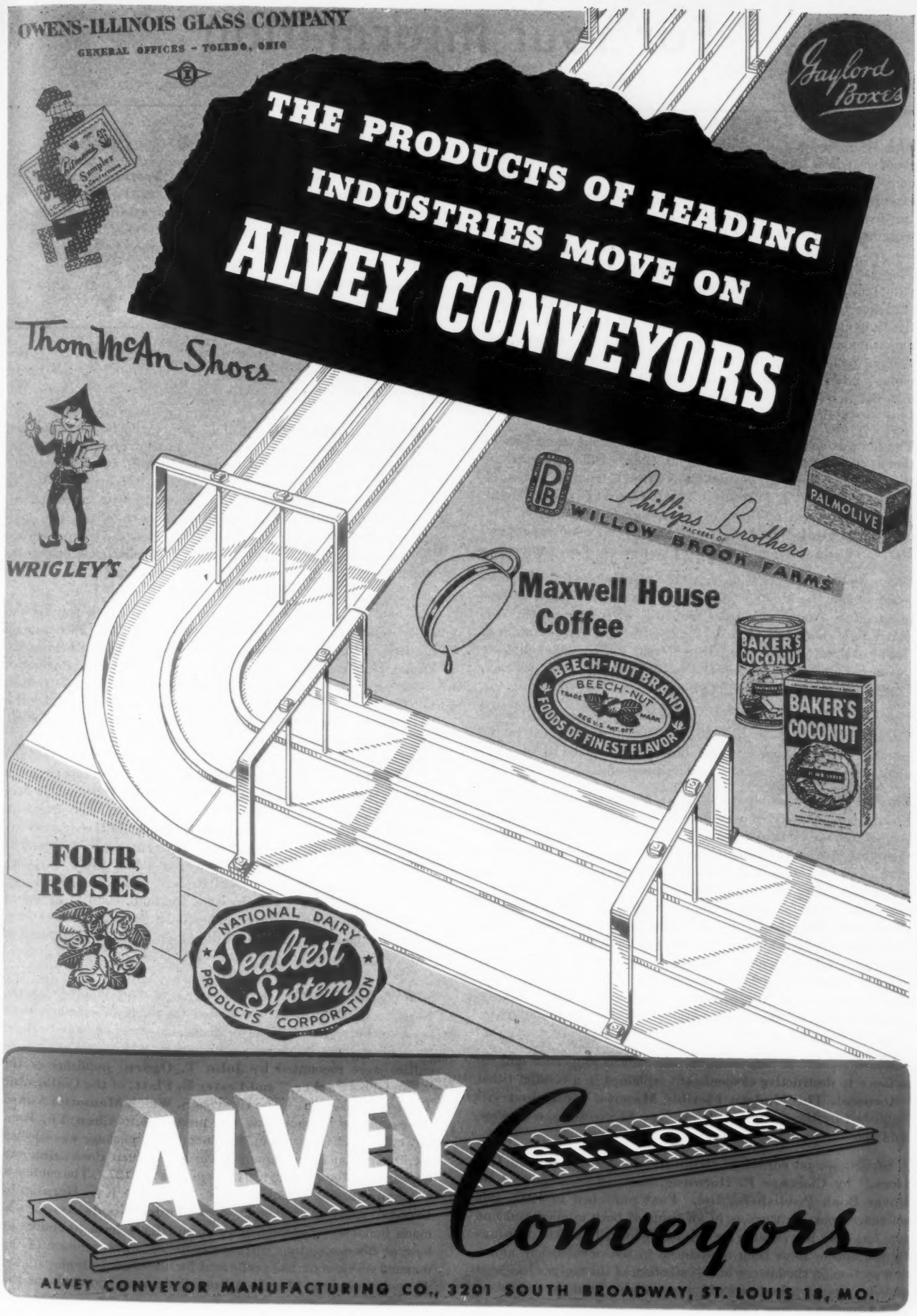
Blue River Plastics Co., New York City, has moved to 329 Canal St.

Directors of **The Arabol Mfg. Co.,** New York, makers of adhesives, elected the following company officers: **William A. Weaver,** president and treasurer; **Raymond L. Grant,** assistant treasurer; **Carl O. Seitz,** secretary; **Marjorie B. Ernst,** assistant secretary; **Henry E. Weingartner,** assistant secretary; **Edward E. Diedrichs,** vice-president in charge ofsales; and **John J. Sokolinski,** vice-president.

E. C. Corey

Edward C. Corey has joined the sales force of **Brown-Bridge Mills, Inc.,** Troy, Ohio, manufacturers of gummed tapes and papers. He will cover Michigan and adjacent territory.

William J. McClintock, Jr., vice president of the **National Paper Box Assn.,** died May 29.


OWENS-ILLINOIS GLASS COMPANY
GENERAL OFFICES - TOLEDO, OHIO
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THE PRODUCTS OF LEADING INDUSTRIES MOVE ON
ALVEY CONVEYORS
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Phillips Brothers
PACKERS OF
WILLOW BROOK FARMS
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BAKER'S COCONUT
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ST. LOUIS
Conveyors
ALVEY CONVEYOR MANUFACTURING CO., 3201 SOUTH BROADWAY, ST. LOUIS 18, MO.

For Your Information

The **1946 Modern Plastics Encyclopedia**—formerly *Plastics Catalog*—poises plastics on the threshold of their greatest achievements. Prewar progress is consolidated with wartime expansion and development to give the complete picture of plastics materials, methods and machines. Divided into 12 basic sections, the **1946 Modern Plastics Encyclopedia** is a comprehensive guide to the manufacture and use of these materials. The opening section is a short handbook of plastics materials manufacture, processing, end-use possibilities and production statistics to stimulate thinking of industrialists. Contained in the **Encyclopedia** are a bibliography listing the latest books and magazine articles on plastics, a glossary giving the official definitions of technical plastics terms, and a directory section listing names, addresses and personnel of all categories of plastics manufacturers. Priced at $6, copies may be obtained from the Plastics Catalogue Corp., 122 E. 42 St., New York.

The fibre drum industry established a permanent trade association at a recent meeting in Cleveland, Ohio. Officers elected are **H. L. Carpenter, Carpenter Container Corp.,** Brooklyn, N. Y., president; **W. J. Mahoney, Master Package Corp.,** Owen, Wis., vice-president; **Glenn Mather, The Container Co. Div. of Continental Can Co., Inc.,** Van Wert, Ohio, secretary; **R. C. Carlson, Emery-Carpenter Container Co.,** treasurer.

Illustrations of the principal types of Celanese plastics, the processing of those products, ASTM methods and service tables are provided in a booklet titled **"Molding with Lumarith,"** recently published by **Celanese Plastics Corp.** Presentation of technical data has been simplified to make it understandable to the user of plastics as well as the molder and industrial designer. Copies are available from 180 Madison Ave., New York 16.

The complete plastics facilities performed by **General Electric Co.** at 1 Plastics Ave., Pittsfield, Mass., are described in the annual **"One Plastics Avenue"** brochure published by the company. Requests for copies should be directed to General Electric.

The Packaging Institute is going ahead with plans for its **First International Packaging Exposition,** scheduled to be held at Grand Central Palace, New York, next March 3 to 8, according to a recent announcement. Present plans call for the show to be organized in sections according to raw materials used and classes of products packaged; there will be no booths for individual manufacturers. Suppliers of materials are to be represented collectively in exhibits sponsored by their various trade associations; members of the Production Division of the Institute are to be represented in groups covering such product fields as foods, tobacco, confections, drugs, etc. Basic idea of the show is to appeal to consumer interest, which will make it unique among packaging expositions. Foreign manufacturers, in nationality groups, are being invited to participate.

Physical aspects of **Koroseal,** its mechanical properties and resistance to destructive elements are explained in a booklet titled **"Koroseal, The Modern Flexible Material for Industry."** Published by the **B. F. Goodrich Co.,** Akron, Ohio, copies are available on request to the firm.

A revised second edition of **"Handbook of Designs and Devices,"** by **Clarence P. Hornung,** has just been printed by **Dover Book Publishers, Inc.** First published in 1932, this reference book for workers in all fields of both applied and fine arts has been unavailable for several years. The 1836 drawings by the author have been reproduced in the new edition, and a new section on the history and symbolism of the designs has been added. Copies priced at $3.75 are available from the publisher, 1780 Broadway, New York.

What's doing

June 24–28—**American Society for Testing Materials,** 49th annual meeting and exhibit, Statler, Buffalo.
June 24—**Twentieth Annual Confectionery Industries Exposition,** Stevens Exposition Hall, Chicago.
June 25–27—**National Confectioners' Assn.,** 63rd annual convention, Stevens, Chicago.
August 21–24—**National Food Distributors Assn.,** Sherman, Chicago.

'Packaging Picture—The Story of Bemis Multiwall Paper Shipping Sacks" tells how Bemis multiwall bags are made. Copies are available on request from 408 Pine St., St. Louis, Mo.

The effective merchandising of a wide range of packaged and non-packaged products through properly designed counter, store and window displays forms the theme of an illustrated brochure, **"Merchandise Presentation,"** issued by **W. L. Stensgaard & Associates,** Chicago. Replete with photographs and descriptions of typical displays covering every type of merchandise from suspenders to wallpaper, the comprehensive publication also pictures a number of famous trade characters which have proved to be potent merchandising aids.

The outlook for paperboard supplies, OPA pricing policies and labor relations problems were discussed at the 28th annual meeting of the **National Paper Box Mfgrs. Assn.,** held at the Drake Hotel, Chicago, May 12 to 15. **John H. Paterson,** chief, paper and paperboard branch, **Forest Products Division,** CPA, outlined **"The Paperboard Situation as Viewed by the Civilian Production Administration."** **George J. Kroeck** was principal speaker at a 50th anniversary meeting of the **Western Paper Box Mfgrs. Assn.,** now the western division of NPBMA. **A. M. Bond,** Boston, Mass., was again named president of the national organization, while **William J. McClintock, Jr.,** Harrisburg, Pa., was elected vice-president. Officers continued in office include **William R. Kreeger,** secretary, Philadelphia, Pa.; **Henry J. Aemisegger,** treasurer, Philadelphia; **W. Clement Moore,** cost and tax accountant, Philadelphia, and **Harry Edwin Roden,** directory of Publicity, New York City. **Fred C. Kewell,** Oakland, Calif., was named to the slate of national directors and **A. S. Daniel,** Chicago, was added to the list of divisional directors. The 1947 meeting of NPBMA will be held at Atlantic City, N. J., on May 18 to 21.

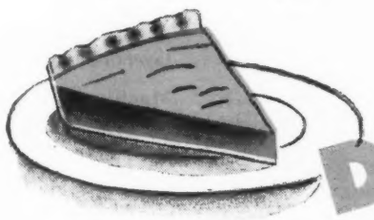
The Toilet Goods Assn., meeting at the Waldorf-Astoria, New York, May 15–17, celebrated the 10th anniversary of its organization. The first day's discussion program was featured by a symposium on current shortages in which packaging difficulties were recounted by **John T. Ogden,** publisher of the **"The Glass Packer,"** and **Lester B. Platt,** of the **Collapsible Tube Mfgrs. Assn.** The **Charles S. Welch Memorial Award** for excellence in packaging was presented to **Chen Yu, Inc.,** for its **Cloud Silk** make-up compact. This package was selected for illustration several months ago in **Modern Packaging** and appeared in the January, 1946, issue on page 127. The container is manufactured by **Grote Mfg. Co.,** Bellevue, Ky. **Herman L. Brooks,** retiring president of the **Toilet Goods Assn.,** was made honorary chairman of the board for a term to endure as long as his association with the industry, in recognition of the unusual services he has performed for the organization. At the Thursday session, **Martin Ullman,** designer, pointed out the need for continuous redesign and improvement of packaging.

SELF-SERVICE

"Hey, Mom! Let's have pumpkin pie!"

Sure, son, you can have pumpkin pie tonight. You'll want a second helping, too, because Dobeckmun processed film protects the fine flavor from vine to oven. Attractively designed and decorated packages and overwraps, by Dobeckmun, do both these important jobs. They keep the foods . . . and sell them, too.

The Dobeckmun Company, Cleveland 1, Ohio. Branches at: Boston, Chicago, Cincinnati, Los Angeles, New York, Philadelphia, San Francisco and Seattle. Representatives everywhere.



DOBECKMUN

Self-selling packages in processed films and foils

U. S. patent digest

edited by H. A. Levey

This digest includes each month the more important patents which are of interest to those who are concerned with packaging materials. Copies of patents are available from the U. S. Patent Office, Washington, at ten cents each in currency, money order or certified check; postage stamps are not accepted.

Applicator for Adhesives, F. B. Baker, Chicago, Ill. U. S. 2,397,080, Mar. 26. In combination, an adhesive container, a flat-topped cover member therefor, cooperating means on the container and cover for sealing the container by means of the cover, a rigid wooden stem having its upper end squared and extending perpendicularly from the underside of the cover member into proximity with the bottom of the container, with flat-headed nail piercing the cover member and the squared end of said stem to secure the latter firmly against the cover, and a rubber boot surrounding the entire length of said stem, and extending from cover to bottom of container its lower end fashioned in the form of a flexible fin for spreading the adhesive.

Carton, W. P. Frankenstein, Cincinnati, Ohio. U. S. 2,397,135, Mar. 26. In a box or carton the combination of a bottom panel, walls extending normal to said bottom panel from two opposed sides thereof, said walls each composed of an inner and an outer wall member, said outer wall members having a receding contour at the opposite ends, and supplied with a tucking flap.

Wrapping Machine, C. J. Malhiot (to F. B. Redington Co., Chicago, Ill.). U. S. 2,397,190, Mar. 26. A machine for wrapping articles partially enclosed with a tubular wrapper having end portions extending beyond an end of the article being wrapped comprising means for rotating the article and its wrapper about the longitudinal axis of the article, and for moving the article along an end-folding path.

Closure for Valves of Bags. A. Norvig (to St. Regis Paper Co., New York, N. Y.). U. S. 2,397,198, Mar. 26. A valve-type bag having a filling opening through the wall thereof, a valve flap extending into the bag from the inner side of the opening, an imperforate closure member secured to the bag wall on the outer side of said opening and hinged with respect to the bag wall, and having a free end extending into the bag further than said flap.

Bottle Capper, R. Sonnenberg (to Mid-West Bottle Cap Co., Belvidere, Ill.). U. S. 2,397,297, Mar. 26. The combination in a capper of a frame having vertically disposed supporting means, a hood feeding frame vertically adjustable thereon, cap seating means, means for carrying and driving said cap seating means supported on said supporting means and equipped with hood magazine, hood applying means and bottle gripping means carried on said hood feeding frame.

Bottle Carrier, R. B. Watson, Peoria, Ill. U. S. 2,397,305, Mar. 26. A device for the purpose named including a normally flat frame having a form to encircle a group of bottles to be lifted and which are arranged in close order; a carrying handle including two spaced portions adapted to span the frame.

Liquid Dispenser, L. O. Leach, Seattle, Wash. U. S. 2,397,321, Mar. 26. A liquid dispenser comprising an elongated container having flexible side walls and a bottom wall co-incident with the back of a comb, said bottom wall and co-incident comb back being provided with a transverse passage establishing communication between said container and the tooth base on the comb back, equipped with reciprocatory valve slidably mounted in the container bottom.

Bottle Carrier, H. C. Singer (to Zimba Kola Co., Inc., New York, N. Y.). U. S. 2,397,376, Mar. 26. A bottle carrying device for supporting capped bottles, said caps having extending flanges, said device comprising a blank cut and scored from sheet material forming a suspending part and a bottle engaging part with a fold line therebetween, and so made with tab and tongues extending therefrom and key-hole openings that when folded it enclosed the necks of the bottles.

Lipstick Holder, J. B. Haley, Houston, Texas. U. S. 2,397,416, Mar. 26. A cosmetic holder comprising spaced circular, concentric discs, a circular spacer between the discs forming a stop, separators between the discs spaced apart to provide radial spaces for the reception of cosmetic sticks.

Anchorage Device for Closures, M. Schwartz, Chicago, Ill. U. S. 2,397,440, Mar. 26. A closure for a container comprising a cup-shaped body having external threads to be screwed into a threaded opening in the container and having an annular flange extending outwardly from the edge of the cup-shaped body.

Portable Bottle Carrier, S. R. Koolnis (to Display Cartons Co., New York, N. Y.). U. S. 2,397,549, Apr. 2. In a portable bottle carrier having score lines and cut lines defining a bottle-supporting section, at least one side section with at least one bottle-receiving opening therein and at least one handle carrying section, the improvement in blands being a multiple number of cut lines defining a multiple number of strips connecting the handle carrying section and its side section.

Container Closure, H. A. Barnby & J. M. Wheaton (to Owens-Illinois Glass Co., a corporation of Ohio). U. S. 2,397,589, Apr. 2. A cap for closing and sealing a container, comprising superposed laminations including an inner layer of wax which is plastic at normal living room temperatures, a superposed lamination of oil paper, a lamination of pulpboard overlying the oil paper and bonded thereto by a layer of adhesive material and paper shell cap overlying the pulpboard and formed with a marginal skirt.

Carrying Means for Containers, W. J. Newman (to The Gardner-Richardson Co., Middletown, Ohio). U. S. 2,397,880, Apr. 2. In combination a box which when closed has superposed walls, said walls having registering perforations therein and a handle member engageable with said closed box wholly by outside manipulation and having portions for entering said perforations and for engaging said juxtaposed walls, said handle being a wire member having a bail with arms and engagement loops.

Handle Structure for Bottle Carriers, A. Wesselman, Cincinnati, Ohio. U. S. 2,397,898, Apr. 2. A merchandising package comprising a collapsible body member having apertured bottle-receptive wall portions with upper edges in contacting relationship each formed with pairs of handle receiving perforations in spaced relationship.

Carton, W. P. Frankenstein, Cincinnati, Ohio. U. S. 2,397,934, Apr. 9. In a carton the combination of a panel, walls extending from two opposed sides thereof each having a first wall member hingedly connected to and extending from the side of the panel at an angle thereto.

Closure, J. H. Conway, Detroit, Mich. U. S. 2,397,948, Apr. 9. A closure including a covering means extending over the mouth of a vessel, a split retaining member having overlapping extremities holding said covering means in position, a lever arm rigid in the plane of the surfaces of the overlapping extremities, with friable joint securing said overlapping extremities and one end of the lever arm to one another whereby upon movement of the arm in a direction parallel with the plane of the overlapping extremities said joint is adapted to be broken and said overlapping extremities freed from one another.

Closing Machine, H. B. Peterson & R. E. Renard (to American Can Co., New York, N. Y.). U. S. 2,397,979, Apr. 9. In a machine for sealing containers under vacuum, the combination of a sealing chamber having means for vacuumizing same, a continuously rotatable sealing head disposed within said chamber.

Folding Box, S. Platt, San Francisco, Calif. U. S. 2,398,155, Apr. 9. A rectangular box having a bottom wall, two opposed end walls, and two opposed side walls all framed from a single sheet of cardboard, said end and side walls being extensions of bottom wall respectively folded on themselves to prove a double layer of said sheet.

Machine for Making Containers, W. W. Van Voorhis (to Fibreboard Products, Inc., San Francisco, Calif.). U. S. 2,398,200, Apr. 9. A machine for making containers, having means comprising a reciprocative plunger for forming container blanks successively into container form, a runway into which said plunger moves

"Keep your eyes peeled for sharp shoulders!"

"Be sure to remind your customers that well designed bottles avoid troubles on production and packing lines. Poorly designed packages with sharp corners, bottoms with too much push-up, bodies with excessive bulges or concavities all add to the packers' headaches."

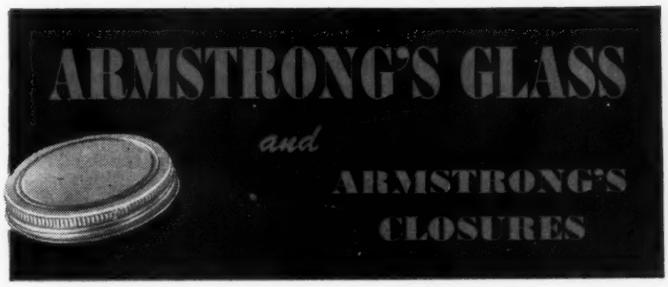
That's Jim Steelman talking, telling a group of Armstrong's salesmen things about bottle design and specification to help them do a better job of servicing your glass container needs.

Jim is chief glass designer at Armstrong's Millville, N. J., glass plant, and he's spent many years designing glass containers that are beautiful and practical.

So by the time he's through, every Armstrong's representative has a pretty good idea of the important fundamentals of glass container design. They're not experts, of course. But the weeks that every Armstrong's representative spends studying with Jim and other veteran craftsmen in all of Armstrong's plants do give him a practical, first-hand knowledge of glass and the various types of closures.

And if this extra knowledge some day helps one of our representatives do a better, more intelligent job of solving a glass or closure problem for you, we'll feel this extra training more than justified.

For complete information about any of Armstrong's Glass or Closures, get in touch with your Armstrong's representative, or write direct to Armstrong Cork Company, Glass and Closure Division, 5906 Prince Street, Lancaster, Pennsylvania.



on its forming stroke to insert the container forms thereinto and nest them therein and means to maintain open the form of the container immediately preceding that being nested.

Cutting Apparatus, W. J. Keller (to Western Electric Co., Inc., New York, N. Y.). U. S. 2,398,230, Apr. 9. A cutting apparatus comprising a cutter, a support, an unpierced holder of transparent material for a material carried by the support, and means to cause relative movement of the support and cutter to cause cutting of portions from the material.

Bake Pan, R. F. Beerend, Bay Village, Ohio. U. S. 2,391,767, Dec. 25, 1945. A meat-cooking carton comprising an inner carton having the bottom, side and end walls presenting smooth unobstructed inner surface and an outer carton having a bottom and end wall integral therewith said end walls having integral infolding tabs, said inner carton comprising a seamless carton formed of a single sheet of paperlike material.

Carton, A. E. Bentham (to The Baltimore Paper Box Co., Baltimore, Md.). U. S. 2,398,402, Apr. 16. A carton formed of sheet material and comprising an integral one-piece bottom, opposite side walls and cover means, end walls, each end wall having an outwardly projecting rim, portions of said rims being secured to the inner surfaces of the ends of the side walls and bottom, dividers extending across the carton and secured respectively to the inner surfaces of intermediate portions of the side walls.

Consumer-Type Container & Method of Making the Same. L. C. Brooks (to I. M. Jones, one-third), Madison, Wis. U. S. 2,398,404, Apr. 16. In a fibre container a body having flat side walls and angular corners, said side walls at one end of the container having integral inwardly directed closure supporting shoulders consisting of the marginal portions of the side walls bent inwardly on themselves with the extreme marginal edge portions thereof lying flat against the inner surface of the side walls and the part intervening between said extreme marginal edge portions.

End Closure for Paperboard Containers, L. C. Brooks, Milwaukee, Wis. (one-third to I. M. Jones). U. S. 2,398,405, Apr. 16. An end closure construction for flat sided containers, comprising: shoulders on the side walls flush with the ends thereof to provide a uniplanar supporting surface extending around and defining the open end of the container, a disc adhered in position on said uniplanar supporting surface, said disc having a hole therethrough of a size larger than the opening defined by the inner edges of the shoulders.

Dispensing Tube, J. Pepin, Chicago, Ill. U. S. 2,398,505, Apr. 16. A material dispensing tube comprising in combination a tubular body formed of a sheet of flexible material wound upon itself a plurality of times to provide an elongated tube of a plurality of superimposed plies or layers. One end of tubular body being closed and the opposite end of the tubular body being provided with a pouring spout.

Closure, R. Nyden (to F. N. Burt Co., Inc., Buffalo, N. Y.). U. S. 2,398,553, Apr. 16. A closure for containers including, in combination, a cup-like outer member having a peripheral depending outer flange, a disc-like inner member having integral therewith a series of peripherally arranged separate depending flange members positioned to receive parts of the container.

Closure, R. Nyden (to F. N. Burt Co., Inc., Buffalo, N. Y.). U. S. 2,398,554, Apr. 16. A receptacle closure having a body portion to extend across the mouth of a receptacle and an angularly disposed skirt portion to extend along and enclose parts of the receptacle adjacent to said mouth.

Batching Scale, A. J. Jerome (to Toledo Scale Co., Toledo, Ohio). U. S. 2,398,643, Apr. 16. In a scale for compounding batches made up of material in different amounts, in combination, feeding means for each material, common material receiving means, a lever system supporting said material receiving means, a plurality of separate force counterbalancing and indicating mechanisms.

Meltable Adhesive Sealing and Reinforcing Tape, L. Davis & E. C. Tuukkanen (to McLaurin-Jones Co., Brookfield, Mass.). U. S. 2,398,735, Apr. 16. A sealing tape comprising a strip of sheet material coated with a thermoplastic adhesive composition including an asphalt having a melting point below 200 deg. F. blended with an unmilled reaction product of rubber and a halogen acid of tin in proportions of substantially 1 to 6 parts, by weight, of the latter in 20 parts of the mixture.

Pigeon Container, O. Meyer & L. Stein (to Government of the United States of America, as represented by the Secretary of War). U. S. 2,398,797, Apr. 23. A blank for forming a collapsible container comprising a bottom section, a top section and two side sections, said sections being rectangular and separated by scored lines so that they can be folded relative to each other, having tongues and tabs extending from the ends, and provided with cut out portions.

Paper Coating, G. D. Muggleton & A. F. Piepenberg (to Combined Locks Paper Co., Combined Locks, Wis.). U. S. 2,398,844, Apr. 23. The method of coating paper which consists in applying a measured film of aqueous suspension of solids on the surface of one of a pair of rolls running in engagement with a web of paper and thereafter imparting to said film a heterogeneous pattern to break up the surface tension ridges therein, and finally re-working said film to obliterate said pattern.

Display Device and Household Rack, M. Rosenblatt, Kew Gardens, N. Y. U. S. 2,398,858, Apr. 23. A display device and household rack, comprising a plurality of parallel and laterally spaced right angle triangularly shaped members having parallel altitudes disposed in a common plane, a pair of superimposed support strips extending across and pivotally connected with the apexes and the right angle ends of the bases of triangularly shaped members.

Weighing Machine Control, J. W. Drinnon, Eatonville, Wash. U. S. 2,398,887, Apr. 23. An apparatus for weighing material from a supply bin having a normally closed discharge gate at its bottom, a weighing-out receptacle arranged to receive the material discharged through the bin gate and mounted for its displacement under the weight of material deposited therein.

Brush Holder and Drip Catcher. I. M. Oller, Leitchfield, Ky. U. S. 2,399,056, Apr. 23. A structure comprising a container, means to suspend a plurality of paint brushes in the container, a separate wall under each means to catch the paint from the brushes held by the respective suspending means, whereby such paint will not admix.

Can-Feeding Means, C. H. Abbott, Astoria, Ore. U. S. 2,399,087, Apr. 23. A machine comprising a can cradle movable repeatedly from a can-receiving position to a can-discharge position and back to said receiving position, with can runway extending to cradle, and can stop mounted near the delivery end of runway.

Bottle Vending Machine, J. R. Donaldson, Dallas, Texas (25% to A. H. Caperton, and 25% to J. W. Barnes). U. S. 2,399,105, Apr. 23. An article dispensing machine including vertically disposed and relatively parallel merchandise magazines and an intermediate dispensing magazine communicating with the first magazines at different levels and into which articles from first magazines are discharged singly from the bottoms by gravity.

Means for Slitting and Re-Coiling Strip Metal, E. Reed & D. H. Washburn (to American Rolling Mill Co., Middletown, Ohio). U. S. 2,399,155, Apr. 23. A process of decoiling, slitting and recoiling strip metal, which comprises decoiling the metal strip while maintaining the side edges thereof accurately adjusted to the receiving position of a slitter.

Packing for Collapsible Tubes, H. R. Kohlhepp (to American Box Board Co., Grand Rapids, Mich.). U. S. 2,398,536, Apr. 16. A two part container of thin material including two intermediate aligned elongated sections, one foldable over the other, each of said sections at its outer end being of concaved shape and progressively decreasing in depth from its outer to its inner end.

Razor Blade Pack, L. Kuhnl & J. R. Reyburn (to Magazine Repeating Razor Co., New York, N. Y.). U. S. 2,398,539 Apr. 16. A razor blade pack comprising a stack of razor blades and a U-shaped clip retaining the stack in assembly, at least one of the legs of the clip being provided with a flange closely overlying and sloping over an exposed bevel facet of one of the exterior blades of the stack to prevent lateral movement of the stack in the direction of said flange.

M·V·T·

Portrait of your boss **. . . This is the lady who keeps you in your job, whose demands for quality in the products she buys means your success or failure. She wants your best—in product and protection —so that she receives the product as you packed it, free of moisture changes. Is this the case with your products? We offer no magic remedy, but we do say that to keep your market, you must have genuine Moisture Vapor Control, and that for M.V.C., there is nothing better or surer than DAREX Thermoplastic Coatings. Let's talk it over.**

Dewey and Almy Chemical Company, Cambridge 40, Massachusetts

Assured protection for moisture-sensitive products

DAREX *Thermoplastic* COATINGS

YOUR PRODUCT WILL GO PLACES IN

LUSTEROID

VIALS AND TUBES

They buy your product when it's packaged so they can see it. That's why products go places in LUSTEROID, the crystal-clear plastic vials and tubes.

For all their light weight, these containers are strong, rigid, unbreakable—ideal for product protection and perfect display. LUSTEROID saves you money, too, by cutting handling and shipping costs. Their printability eliminates labeling expense.

All colors to choose from—clear or opaque. Sizes from 1/4" to 1 1/4" in diameter—lengths up to 6". Cork, slip-on or screw-cap closures. Write for details.

LUSTEROID CONTAINER CO., Inc.

Formerly Lusteroid Division of Sillcocks-Miller Company

Office and Factory

10 W. PARKER AVENUE, MAPLEWOOD, N. J.

MAILING ADDRESS: SOUTH ORANGE, N. J.

For Yale and Towne . . .

(*Continued from page 109*) padlocks and springlatches. "Safeguard your valuables," suggests the side which carries pictures of locks. "For quiet, more comfortable living" accompanies the door and screen closers.

Sale of door closers is heavily promoted on the boxes for some hardware. On practically all these boxes, one panel is devoted to the slogan, "Use Yale door closers for quiet and comfort."

In the case of boxes which contain multiple quantities of the product, and hence are dealer rather than consumer boxes, some of the sales copy is directed toward the dealer. On the box containing six "Silver Six" padlocks, for instance (Fig. 9), one side panel carries three cartoon characters representing "Quality, Reputation, Promotion" under the heading "Yale puts three big sales movers into your business—the name Yale helps make the sale." The back panel of this box points out to the dealer that Yale padlocks are nationally advertised, popularly priced, and that various catalog numbers represent three qualities for moderate, good and real security.

The new program has been followed through to the shipping cartons, which now carry labels in the same three-color scheme, with sales promotion addressed to wholesaler and dealer.

The whole redesign program, under Mr. Johnson, was carried out by Yale & Towne up to the point at which rough sketches were drawn up and approved and colors selected. The finished art and production work was done by the box manufacturer, to whom Yale & Towne pays highest praise for unusual cooperation and assistance during the entire two year development program.

CREDITS: *All boxes by Simplex Paper Box Corp., Lancaster, Pa. Labels by General Offset Printing Co., Springfield, Mass. Marking device by Markem Machine Co., Keene, N. H.*

Feminine letter writers . . .

(*Continued from page 117*) designer who suggested a red, white and blue design for the cover. This has become the basis for a Wessel trademark and is now being used on all the company's stationery—soon to be adapted in softer colors for feminine social stationery. The trademark is also printed on lacquered metallic bands which hold the paper in the boxes. Cast-coated, high-finish paper is used for the box coverings which are loose wrapped to give a richer appearance.

Another Wessel innovation is the use of selling copy about the paper on the box cover; "Pen Smooth, it makes writing easier, clearer, speedier; Firm Textured —it doesn't scratch or tear; Pre-Weighed—one airmail stamp flies 7 sheets and envelope; Peek-Proof—it can't be seen through, write on both sides."

Occasionally a transparent package for stationery

BETTER "CORDIALLY ADVERTISED" . . . . . than "Politely Ignored"

In a competitive world, it is good business to transform ordinary shipping boxes into potent "traveling billboards" which advertise, not ignore, the products they carry. It's not only good business, it's good merchandising.

HERE'S SHIPPING BOX INDIVIDUALITY

Now, until ample raw materials are again available, plan your new packaging program. When your shipping boxes identify your product throughout distribution . . . they help sell, create good will, build customer acceptance. In the H & D Package Laboratory, skilled artists, designers and package engineers will make your shipping boxes possess true individuality . . . will make them as representative of your company and product as your letterheads and trade mark. The complete story of shipping box individuality is told in the booklet "How to MERCHANDISE with Corrugated Boxes." Address The Hinde & Dauch Paper Company, Executive Offices, 4603 Decatur Street, Sandusky, Ohio.

REG. U. S. PAT. OFF.

H&D HINDE & DAUCH

AUTHORITY ON PACKAGING

FACTORIES IN: Baltimore • Boston • Buffalo • Chicago • Cleveland • Detroit • Gloucester, N. J. Hoboken • Kansas City • Lenoir, N. C. • Montreal • Richmond • St. Louis • Sandusky, Ohio • Toronto

CHECK THESE REASONS

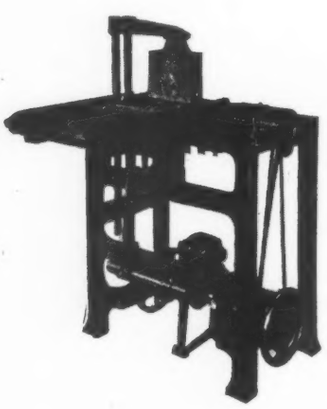
For Using

PETERS PACKAGING EQUIPMENT

1. Reduce your carton packaging cost
2. Increase your production
3. Save floor space
4. Increase profits

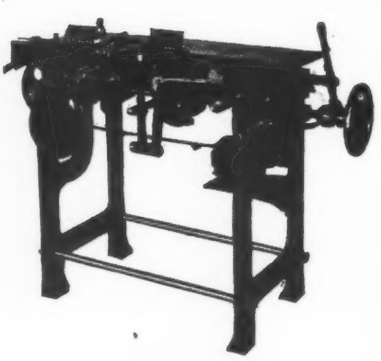
If you are setting up and closing cartons by hand in your packaging department, it will pay you to investigate. These PETERS economical packaging machines can show you substantial economies with increased production and greater profits.

Send us samples of the cartons you are using today. Recommendations for the proper equipment to meet your specific requirements will be sent promptly.



This PETERS JUNIOR CARTON FORMING & LINING MACHINE sets up 35–40 cartons per minute, requiring only one operator. After the cartons are set up, they drop onto a conveyor where they are carried to be filled. If several size cartons are desired to be handled, machine can be made adjustable.

This PETERS JUNIOR CARTON FOLDING & CLOSING MACHINE closes 35–40 cartons per minute, requiring no operator. After cartons are filled, they enter machine on conveyor and are automatically closed. Can also be made adjustable to handle several different size cartons.



PETERS MACHINERY COMPANY
GENERAL OFFICE AND FACTORY
4700 RAVENSWOOD AVENUE, CHICAGO, ILL.

is seen on the counters. Park Square Mfg. Co., St. Paul, Minn., is putting writing papers and envelopes in a set-up box with transparent acetate cover so that product is clearly visible, showing its color. Product and trade name are affixed by means of metal foil laminated seals pasted on the transparent cover. Park Square is promoting the re-use features of the box as a jewel or trinket box or for lingerie or hosiery.

Joseph H. Katz & Co. of Pittsburgh is distributing popular-priced boxed writing paper in a collection of packages with full-color lithographed box coverings. Designs are in keeping with the liners and designs on the paper. All are romantic in theme:—"Bal Masqué," showing the figures of a man and girl in masquerade costumes; "Dresden Sheer," typified by a shepherdess; "Reunion," suggesting a Victorian portrait; "Persian" —depicting an oriental theme. All wraps are repro duced from renderings in water color and air brush.

All stationers are glad to get back to heavier papers for stationery, stronger weight boxes and to prewar constructions. They say wartime innovations were temporary and that the weight of boxboard used was not sufficiently strong to protect the merchandise. They are also glad to get back to deeper boxes with deeper lids to give more eye appeal. They feel that, as far as design trends are concerned, the vogue for elaborate treatment in stationery is here for some time to come and are styling their lines to that end. They feel that colors are more subtle—that you can combine, say, magenta and gray-blue today, chartreuse and pink and many other colors which the public would not have accepted a decade ago. They say there is no definite preference for any particular shaped box, but that the public buys in the popular price range of a dollar to two dollars and stationery buyers do not like too large, hinged boxes because they take up too much space in show cases, although there is always a market for some of these, even selling up to $10.

CREDITS: *White & Wyckoff Mfg. Co.: Beau Catcher wrap—The Marvellum Co., Holyoke, Mass. Eaton's "Romantic America:" cover paper—Velmar made by the Marvellum Co. Eaton's Signature Series: flint paper—Hampden Glazed Paper & Card Co., Holyoke, Mass.; bronze metallic paper—Plastic Coating Corp., Holyoke; textile labels—Alkahn, Silk Label Co., N. Y. Crane's cover papers—Kidskin, Hazen Paper Co., Holyoke, Mass. P. P. Kellogg: designs—Dorothy Simmons, New York. Stanley Wessel & Co.: designs—Jim Nash, New York; cover paper—Kromekote, Champion Paper & Fibre Co., Hamilton, Ohio. Park Square: transparent boxes—F. N. Burt Co., Inc., Buffalo, New York; foil labels, A. J. Anderson, Chicago. Joseph H. Katz & Co.: designs—Stan David Studios, New York.*

CORRECTION—In Fig. 3 of the article "Air Cargo Problems" on Page 121 of the April issue, some of the packages shown were incorrectly referred to as wire-bound veneer crates. All of the wooden containers shown in this picture were of the nailed variety, although some were bound with round wire strap. According to the National Wooden Box Assn., more than 98% of West Coast produce is shipped in nailed wooden containers.

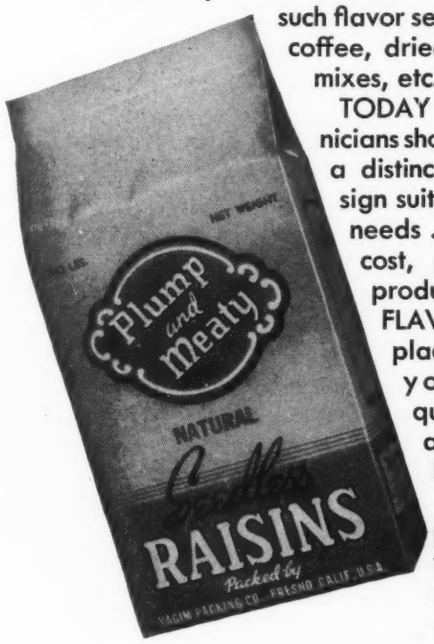
The Answer—

to your Packaging Problem is...

"FLAV-O-TAINER"

TODAY . . . your product, like millions of pounds of other quality foods can go to market in Royal's Pliofilm-lined FLAV-O-TAINER . . . the natural flavor, freshness, and goodness fully protected from your plant to the consumer's pantry!

That's a *bold* statement to make, but one that has been proven time after time by Royal on such flavor sensitive products as coffee, dried fruits and cake mixes, etc.



TODAY . . . let Royal Technicians show YOU . . . through a distinctive package design suited to your market needs . . . through actual cost, performance and production data—how FLAV-O-TAINER can be placed in service on your selling job quickly and profitably.

For the answer to YOUR packaging problem, call or write your requirements to Royal today!

"FLAV-O-TAINER" — THE COOPERATIVE PACKAGE — HELPS SELL YOUR PRODUCT

- Cuts moisture loss to a minimum.
- Assists in FLAVOR RETENTION—natural flavor and freshness sealed in hermetically
- Eliminates INSECT INFESTATION
- Stops PRODUCTION BOTTLENECKS
- Eliminates heavy MACHINERY INVESTMENT
- Permits automatic "valving-off" of PRODUCT GASES
- Provides HIGH PRODUCTION EFFICIENCY—ease in filling and reading
- Insures immediate SALES APPEAL and longer SHELF-LIFE
- Speeds CONSUMER ACCEPTANCE through the "known" advantages of both FLAV-O-TAINER and PLIOFILM.

THOMAS M. Royal COMPANY

5800 N. SEVENTH STREET
PHILADELPHIA 20, PENNA.

SAN FRANCISCO · NEW ORLEANS · SYRACUSE · PITTSBURGH · BRYN MAWR · ST. LOUIS · SEATTLE · ATLANTA · DENVER · NEW YORK · DAYTON · BOSTON · BEAUMONT · DETROIT · CHICAGO

PRECISION PLATE-MAKING IS ALL-IMPORTANT IN PRODUCING

America's Finest Packaging!

Plate-making at Stecher-Traung plant.

DISTINCTIVE labels, box wraps and cartons require precision-made plates that reproduce correct colors in perfect registration. Stecher-Traung has two of the largest plate-making departments in the country . . . staffed by skilled color engravers . . . equipped with giant photo-composing machines that make press plates to hairline accuracy.

More and more of the nation's progressive firms depend on Stecher-Traung —the leader in FULL Color label lithography—for packaging material that really merchandises their products.

★

Labels • Box Wraps • Seed Packets
Folding Boxes • Merchandise Envelopes and Cards • Advertising Material

STECHER-TRAUNG
LITHOGRAPH CORPORATION
Rochester 7, N. Y. • San Francisco 11, Calif.
Offices in Principal Cities

The paper bag . . .

(*Continued from page 135*) a success is readily apparent. Today corn starch is the main ingredient in nearly all paste used in bag manufacture. But it is supplied to the machines by an automatic continuous piping system, and chemists have developed 58 kinds of adhesives used in bag-making. These include waterproof, greaseproof and heat-resistant pastes, and all are repellent to rats and mice. In Gettern's day, rodents grew fat on flour and later on starch, both off and on the finished bag.

In 1871 the little bag factory suffered the same fate as thousands of other enterprises in Chicago. The Great Fire destroyed the five machines and the entire stock of paper and bags. But other firms in the industry came to the rescue. A new set of machines was built and in a short time a new building was constructed. Business boomed.

A petty fraud worked against them by street peddlers resulted in an innovation which still is in use today. Street hawkers would buy a bundle of 4-lb. bags, deface the label, and sell them as 5-lb. bags. This gave their competitors an opening. They could tell a grocer that Wheeler & Fisher—as the firm now was known—was palming off small sizes. So they promptly marked each bag with the size—just as you will find them today.

Until the 1880's, the only bags made were the flat—in effect an envelope which opened on the narrow end—and the satchel-bottom sack. Both types are still in wide use—the flat bag for notions and candy; the sack, easily recognizable by its diamond-shaped bottom, for potatoes, flour, etc.

In the middle '80s came the square bag—similar to the flat type, but with tucks or gussets down the side, which made for greater capacity and a more easily handled package. The square, was followed by the "S.O.S." (self-opening square), or "automatic" bag, which is most widely used today and most familiar to shoppers. It opens when given a deft flip by your grocer and will stand on its rectangular base while filling.

Improvements in paper bags and methods of manufacture since Gettern first struggled with the old Pettee machines in the Chicago loft are as vast as the present-day range of uses.

In the grocery department, bags are made of wet-strength paper, which will not break through when filled with moisture-laden contents such as fresh wet vegetables. Bags for coffee have a protective inner liner which prevents seepage of oil. Double-walled bags keep sugar dry and clean.

Shipping bags constructed with several walls of kraft, and often with an added layer of wax-infused or asphalt laminated paper, performed minor miracles during World War II. Able to protect contents from rough handling, salt water spray, actual immersion and in climates ranging from the sub-zero of the Arctic to the steaming jungles of New Guinea, paper bags were used to ship more than 700,000 types of articles vital to our armed forces. Corrosion-proof bags protected literally

Maybe you don't know *all* the advantages of Patapar

Beautiful Printing:

When Patapar* Vegetable Parchment is printed the effect is bright and colorful. We can do the printing in our plants which are completely equipped for printing by letterpress or offset lithography. Our presses continually hum – turning out printed Patapar in rolls – in sheets – in one color – two colors – several colors.

So if you want your Patapar printed, just call on us. We'll create designs for you – make sketches – suggest colors – handle every detail.

Wet-strength . . . grease-resistance:

Patapar can be drenched in water – even boiled – and remain strong. When moist foods are wrapped in it, Patapar stays intact—*protects*. When Patapar comes in contact with grease, fats or oils it resists penetration. Its outer surface remains clean – inviting.

179 varieties to choose from:

Patapar is made in 179 different types to fill an endless variety of needs. Some types of Patapar are airtight. Other types allow for "breathing." There are types with varying degrees of wet-strength, grease-proofness, translucency.

Keymark:

The Patapar keymark is nationally advertised as a symbol of wrapper protection. We can furnish it without extra charge on your printed Patapar wrappers. It is a way to tell customers that your product is well protected.

A FEW OF PATAPAR'S USES:

Food wrappers, milk can gaskets, bottle hoods, pie doilies, auto accessory wrappers, box and crate liners, bulk packaging units, can liners, vitamin capsule trays, deep freeze wraps.

*Reg. U. S. Pat. Off.

Paterson Parchment Paper Company • Bristol, Pennsylvania

Headquarters for Vegetable Parchment Since 1885

WEST COAST PLANT: 340 BRYANT STREET, SAN FRANCISCO 7, CALIFORNIA

BRANCH OFFICES: 120 BROADWAY, NEW YORK 5, N. Y. • 111 WEST WASHINGTON ST., CHICAGO 2, ILL.

Load-Handling, like Packaging, is part of Your Selling Job

Industrial LOGISTICS* **helps to get Your Product to Customers—and *Their* Customers—at new low cost**

First, design your containers for safe, economical transport as well as increased sales appeal—send for the Elwell-Parker Materials-Handling Consultant to help apply Industrial Logistics in getting them to market faster, at lowered sales cost.

* The science of assembling and handling materials to insure maximum economies at every stage of (a) Procurement, (b) Production and (c) Distribution, using Elwell-Parker Electric Trucks, Tractors and Cranes;

Employing the correct containers (Boxes, Barrels, Bags or Bales) in Master Unit Loads, on Pallets or Skids;

To insure Greater Speed —Faster Production — Greater Turnover — Increased Safety — New Profits.

Then, install Elwell-Parker Truck Systems to transport Master Loads on Pallets. Do away with rehandling—eliminate costly hand labor — speed all operations — deliver goods to customers and their customers at new low cost.

Send today for free Bulletin "A Survey for Management" and separate Booklets on Boxes, Barrels, Bags, Bales. The Elwell-Parker Electric Company, 4525 St. Clair Avenue, Cleveland 14, Ohio.

ELWELL-PARKER
POWER INDUSTRIAL TRUCKS
Established 1893

millions of ordnance parts necessary to the maintenance of our air forces and mechanized armies in all theaters.

On the domestic front, paper bags perform countless tasks. Notion bags, millinery bags, bags for garments, for candy, for bread, for liquor bottles, food bags with transparent windows, heat-sealed refrigerator bags, and even long, narrow bags for umbrellas are among the many types.

A rush to the counters by retail buyers, scrambling for peacetime goods, has so swelled the demand that even the huge modern bag-making capacity—one factory turning out nine billion annually—can't meet it. Officials don't expect full relief for some months.

But complaints that such mammoth production is insufficient have a strange sound if the listener will recall that a century ago manufacturers Whitney & Priest, and Francis Wolle, inventor of a machine that would "cut and fold and paste" paper bags, had to canvass the country side on foot, and almost give their wares away.

In America today nearly 70 billion bags are given away annually to the ultimate consumer—but the takers don't have to be persuaded.

G-E lamp cartons . . .

(*Continued from page 125*) ing lamps, it is hoped that the identification value of the revised design will back up other advertising and selling efforts at the point-of-sale. In self-service stores and other places where personal selling activity is limited, these cartons tend to speak for themselves—a valuable feature for the packages of "impulse" items such as lamps.

From a standardization standpoint, the complete line of G-E lamps imposes a formidable packaging problem. Since varied sizes and shapes of cartons and sleeves are required to contain the many different types of G-E lamps, the basic package design must be flexible. Because of the simplicity of its layout, the new design fulfills this requirement and endows all G-E packages of incandescent and fluorescent lamps with a uniform appearance that emphasizes their "family" relationship and helps different types blend in the same display.

Because of Thomas A. Edison's early association with the General Electric Co., it is believed desirable to retain the close connection between the present G-E lamp and the inventor of the first practical incandescent lamp. For this reason, Mr. Edison's picture continues to occupy an important place on one face of the standard six-lamp carton and individual sleeve wrapper.

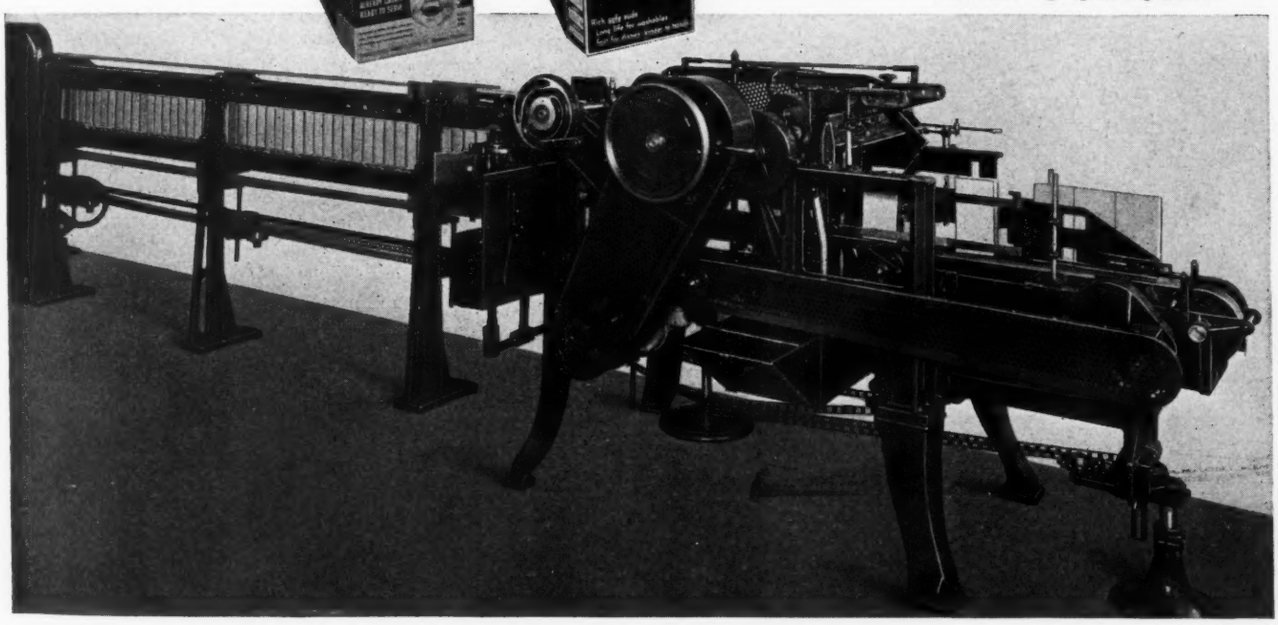
To give lamp packages a little selling "punch" of their own, standard cartons state the aim of G-E lamp research,". . .to make G-E lamps stay brighter longer." The sleeves, which hold single incandescent lamps, are laid out in much the same manner as the cartons, except that they develop the advertising message of more light for less money in a variety of ways.

Recent issues of numerous trade magazines acquainted dealers with the new design. Two-page color spreads announcing the revised packages appeared in

IF IT'S *Yours* IN PACKAGING

CHOOSE PNEUMATIC EQUIPMENT

Shown below:
Pneumatic's High-Speed Top Sealer.



Some of the above packages are new in design, others are not, but all make a strong approach to Package Perfection. They are leaders, that are continually called for at grocery counters all over the nation. These and many more are the result of keen planning and expert application of time tested packaging principles. They are packaged with Pneumatic machinery.

Serving as specialists in the field for over half a century Pneumatic has helped leading producers, everywhere, meet new problems. Helped them not only with an answer in theory, but with well built equipment to make it a reality. And with machines that have earned a wide reputation for "Lower Cost Per Container" operation.

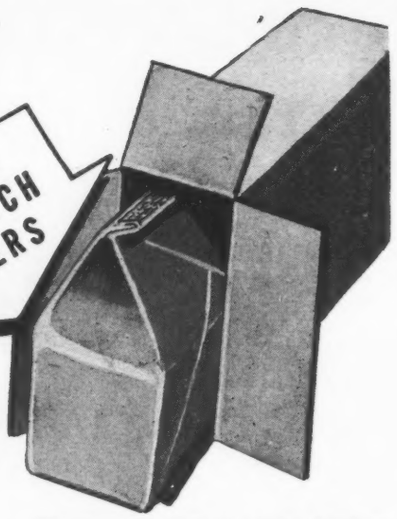
No matter what you may have as a packaging problem. you'll make no mistake in bringing it to Pneumatic, Pneumatic Scale Corporation, Ltd., 82 Newport Ave., North Quincy 71, Mass., · Branch offices: New York · Chicago · San Francisco · Los Angeles.

PNEUMATIC **PACKAGING AND BOTTLING MACHINERY**

Over eighty different machines for the packaging of dry, free-flowing products and the cleaning, filling, capping and labeling of containers for liquids and semi-liquids

Now

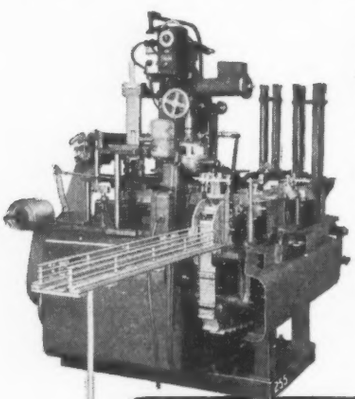
FOR ALL ONE BATCH POWDERS



. . . the new

GOAT

SATCHEL BAG MACHINE



A machine that automatically forms bags, folds, fills and cartons for ALL KINDS of one-batch powders, making an easy-to-open, easy-to-empty, sift-proof, one-batch package.

The Goat Satchel Bag Machine will handle pudding powders, ice cream mixes, gelatins, pie fillings and other free flowing and non-free flowing powders.

Why the Satchel Bag is Preferred

BY LEADING PACKERS OF ONE-BATCH PRODUCTS

Sift-proof Closure A double fold and crimp positively prevents sifting or opening in the carton, eliminating messy, unsightly, leaking packages.

Stronger Bags This strong, satchel bag has no seams to burst and no glued closure to loosen.

Easy Opening, Easy Pouring, Easy Emptying

The Satchel Bag has no staples, adhesives or hot sealed closure for the user to fumble with. The fold pulls out easily forming a pouring spout.

Economy In one continuous, automatic operation, the Goat Satchel Bag Machine forms the bag, fills it, seals it, inserts it in the carton with a recipe book, dates the carton and seals the carton.

WRITE for BULLETIN

The FRED GOAT CO., Inc.

ESTABLISHED 1893

314 DEAN STREET · BROOKLYN 17, N. Y.

more than a dozen publications going to the retailers.

To establish a valuable tie-in at the point-of-sale between the carton and national advertising copy, a picture of the carton appears in consumer magazines.

The colorful appearance and easy recognition features of the new design keep it from losing its identity when shown with other products. It is felt that the eye-appeal of these attention-getting packages will be particularly valuable for store window displays. Already dealers predict these same features will help them devise a wider range of better displays and since the new cartons dress up dealer shelves, they will encourage retailers to maintain an adequate stock.

Mechanical tightness . . .

(*Continued from page 151*) of the proposed method. While it is agreed that this method was born through scientific curiosity, it nevertheless would appear that its application might produce very practical results. By its use the packaging industry can establish minimum standards of tightness which insure the keeping qualities of packaged products. It may not be necessary in some instances to require so-called hermetic seals, and the relative importance or unimportance of sealing quality can be properly evaluated. The package machinery manufacturer and the manufacturer of sealable materials can for the first time determine objectively the performance of material and equipment.

Although the technique which has been outlined applies particularly to semi-rigid packages, we can see no objections to applying the underlying principle to non-rigid structures such as bags and pouches. If such containers are placed into suitable rigid frames, so that the expansion of the bag is confined to the up-and-down direction, tightness factor can be determined.

It is equally true that the method has definite limitations and cannot be used indiscriminately. The specific distortion which we measure is not only dependent upon the dynamics of airflow, but also on the mechanical properties of the container. Under a given stress, different structures will respond differently and the specific response depends upon the tensile strength of the materials which make up the container walls, the thickness of these walls, and, above all, their shape. If the front panel of the package is stressed, the degree of distortion for a given back pressure increases naturally as the area of this panel increases. This means that the tightness factor of one size and shape of container cannot be compared with that of another size and shape unless the effect of the mechanical variables upon the specific distortion has been established. Furthermore, we cannot afford to overlook the impedance effect which the dial indicator may have upon the degree of the distortion. This indicator is spring loaded and on delicate package structures the force required to overcome the spring tension may become an appreciable yet readily measureable factor.

Yet, despite these apparent limitations, the writer

Ready now for IMMEDIATE DELIVERY

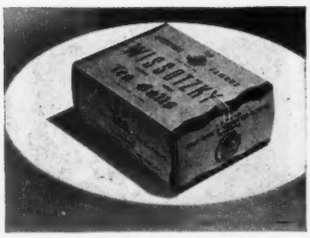
HEAVY DUTY DISPENSERS!

for use with 2592 inch rolls of "SCOTCH" *Cellulose* TAPE

Check through your plant now to see how many of these time-and-tape savers you need. Then order them today from your supplier!

Look how "SCOTCH" TAPE in HEAVY DUTY DISPENSERS solves packaging puzzles!

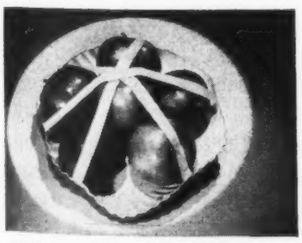
"SCOTCH" Tape makes an air tight seal to keep things fresh! Use colored tape for extra sparkle!



Tuck-in and telescope boxes *stay* closed when "SCOTCH" Tape's on the job—your design and lettering show right through . . . it's fully transparent!

Strong, transparent "SCOTCH" Tape is a *must* for sealing cellophane bags.

Sampling Suggestion—Print your selling message on a card—then anchor the sample with "SCOTCH" Tape.



Odd shaped product? Here's how colored "SCOTCH" Tape built a smart sales unit which may give you a packaging hunch.

Reg. U. S. Pat. Off.

SCOTCH *Cellulose* TAPE

BRAND

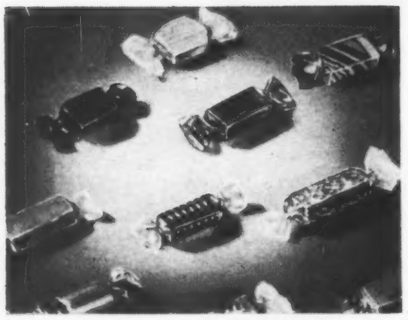
Made in U. S. A. by **MINNESOTA MINING & MFG. CO.,** Saint Paul 6, Minn.

THE 3M COMPANY

"SCOTCH" is the registered trade-mark for the adhesive tapes made by the 3M Company

AMF

Individually
PROTECTED CANDY
The Modern Trend in Candy Merchandising



ROSE ALBION FLYER (RAF 500) TOFFEE CUT AND TWIST WRAPPING MACHINE
Forms, cuts and twist-wraps cylindrical, rectangular or square pieces at *500 per minute.*

ROSE EAGLE PLASTIC CARAMEL FORMING AND WRAPPING MACHINE
Forms, cuts and neatly fold-wraps square or rectangular pieces at *500 per minute.*

ROSE I.S.T. TWIST WRAPPING MACHINE
Twist wraps pieces up *to 160 per minute* depending upon characteristics of the candy piece.

The individually wrapped candy pictured above is only a sample of the variety you can *individually protect* by wrapping on AMF Rose Candy Machines. AMF Rose protected candies are sales builders...increase impulse-buying with colorful, attractive, neat wraps...permit eye-catching visibility, appetizing display, plus brand identification. Your candy stays fresh longer...unaffected by weather conditions...non-sticky...hygienic. Protected from dirt, moisture, and handling, your candy will sell faster.

High speeds for economical production.

MACHINES ON EXHIBIT
Visit us, Booth No. 404, National Confectionery Industries Exposition, Hotel Stevens, Chicago, Ill., June 24-28, 1946.

For complete information and literature on AMF Rose Candy Machines, write the Rose Candy Machinery Division

AMERICAN MACHINE & FOUNDRY COMPANY
511 Fifth Avenue, New York 17, N.Y.

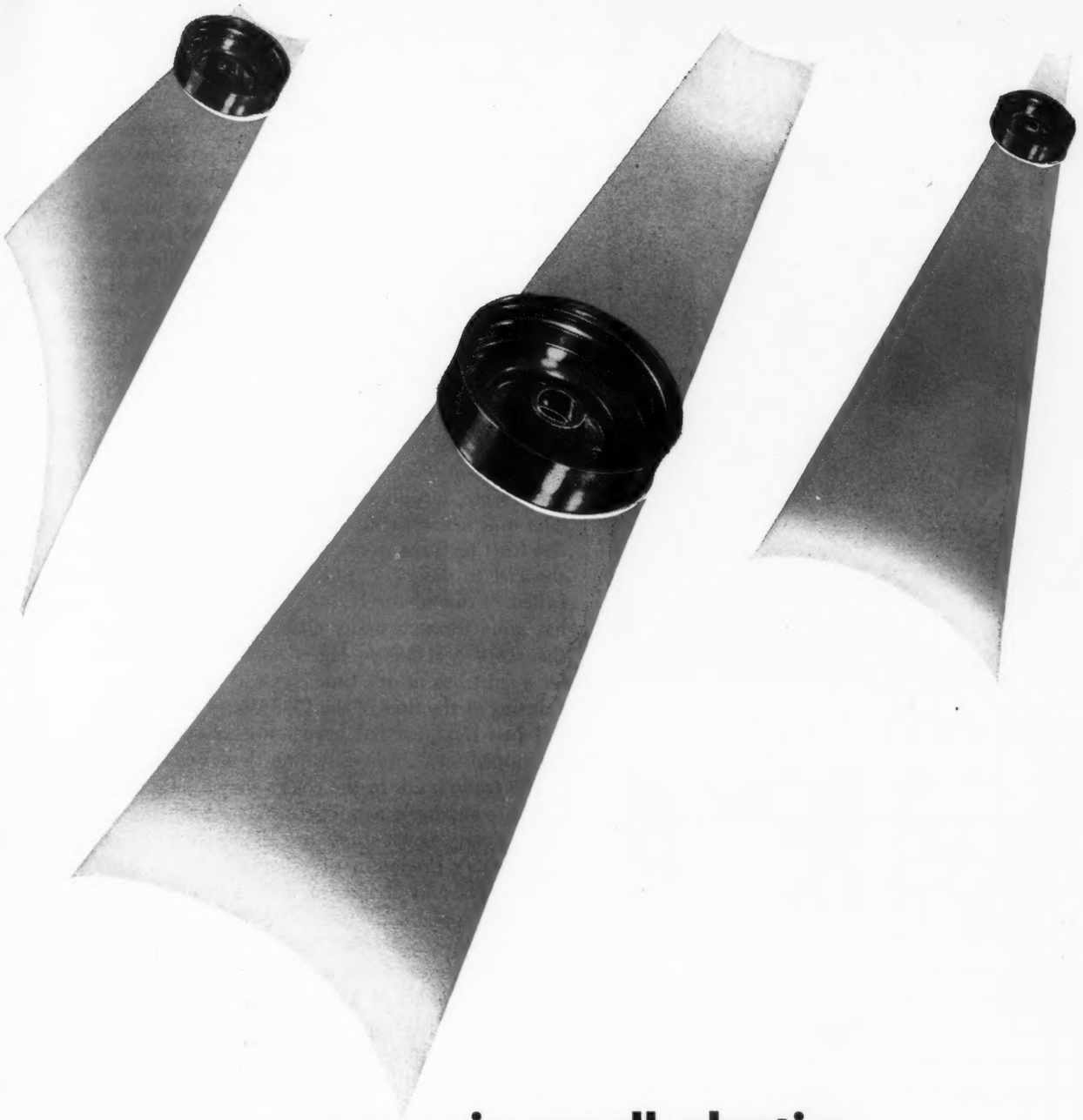
TABLE I—TYPICAL NUMERICAL VALUES OBTAINED IN MECHANICAL-TIGHTNESS TEST

Package No.	$\frac{\Delta p}{Time}$	*Distance In.*	*Tightness*
1	15	0.0007	0.046
2	4.5	0.0042	
2	8.3	0.0095	1.15
2	12.0	0.0150	
3	3.4	0.0155	
3	6.0	0.0250	4.2
3	7.8	0.032	
5	3.3	0.0015	
5	9.1	0.0040	0.44
5	11.8	0.0055	
6	2.4	0.0050	
6	5.3	0.0120	2.3
6	11.4	0.0275	
8	1.6	0.0215	
8	3.5	0.0360	10.2
8	6.2	0.0585	
10	0.3	0.029	
10	0.4	0.037	84

feels that the proposed method is a step in the right direction. It may be farfetched to assume, at this juncture, that further research along these lines will establish a firm foundation on which standards for tightness can be built, but nobody can deny the necessity of such a development in the packaging industry.

Designed for candy . . .

New ideas in candy packaging are being exhibited by Sylvania Industrial Corp. at the Confectionery Industries Exposition in the Stevens Hotel, Chicago, June 24–27. All are printed cellophane. The clown is made simply by bringing together the elongated tops of two bags through the cardboard collar; the tops are turned down and sealed in back. The merry-go-round package has a stick in the middle to support the top, and the effect of a red carousel roof is cleverly created by the way in which the top is folded; transparent tape seals it at the peak. The square effect of the Fairyland house is enhanced by the way in which the green top, or roof, is folded and sealed. These are merely suggested designs, created by Sylvania.



A BIG NAME in small plastics

Owens-Illinois closures are highly praised by an extensive list of satisfied users because of their strength, their uniform thread, their accurate side walls and their tight-sealing.

Our high-speed, automatic closure-molding machines are also available for the construction of a wide variety of small thermo-setting plastic units, maintaining the same high standards of efficiency and economy. Write our Plastics Division for further information.

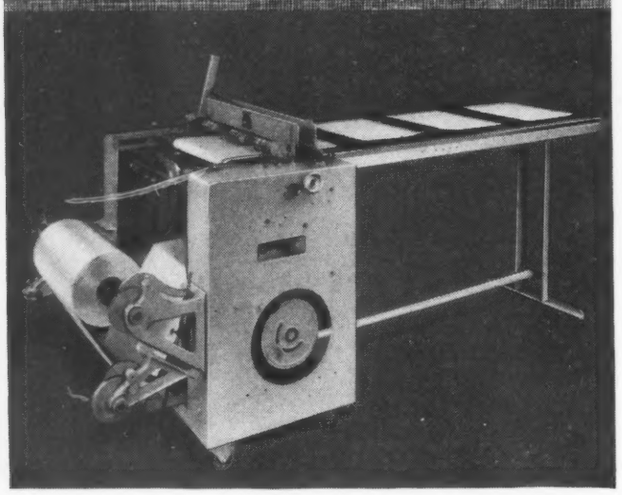
LOOK FOR THE DIAMOND

PLASTICS DIVISION

OWENS-ILLINOIS GLASS COMPANY

TOLEDO 1, OHIO • BRANCHES IN PRINCIPAL CITIES

New CORLEY-MILLER MODEL BL SHEETER-GLUER



PACES HAND WRAPPING

The new Corley-Miller Model BL "Sheeter-Gluer" is the perfect pace-maker for hand-wrap work. It glues, cuts, and delivers plain or printed sheets of Kraft, Cellophane, or other papers, from low cost rolls. Speed of sheet delivery is controlled by a variable speed drive, forcing operator to keep pace. Machine will serve one or several operators.

The Model BL is widely used to glue, cut and deliver sheets for banding, wrapping or bundling paper goods, textiles, bottles or odd-shaped packages.

Electric Eye can be added for "spot" printed rolls.

Diagonal wrapping a textile product in a Cellophane sheet pre-glued at three corners by Model BL.

Banding stationery with band pre-glued and cut by Model BL.

See CORLEY-MILLER Packaging Machines at the Confectionery Industries Exposition—Booth 310—STEVENS HOTEL, CHICAGO, June 24th-27th.

MACHINES FOR: WRAPPING, BAG MAKING, BAG & CARTON FILLING, BAG CRIMPING OR CLOSING, GLUING AND SHEETING, SANDWICH MAKING.

Miller Wrapping & Sealing Machine Co.

Manufacturers of CORLEY-MILLER Packaging Machines
16 SOUTH CLINTON STREET, CHICAGO 6, ILLINOIS

Textiles . . .

(*Continued from page 99*) hold products, children's clothing and infants' items. They were one of the first to start an intensive packaging program. Today they have more than 30% of their products packaged and will put more into packages in the future.

They are particularly conscious of the value of pleasing design. They believe well-designed packages with well-selected colors sell merchandise. They have one of the oldest trade marks in the textile field—1857. Its origin is a quaint story. One of the company's early customers was a storekeeper in a small town in New York State. He had a daughter who was taking painting lessons. She used to paint pictures of fruits—an apple, a pear, a bunch of grapes—cut them out and paste them on the bolts of muslin yardage in her father's store. Soon it was discovered that the bolts so decorated were outselling those of competitors in this area. The mill heard about it. When they discovered that the fruit pictures were doing it, they came down, paid the girl to design a trade mark for them which they called "Fruit of the Loom." This original trade mark has gone through many changes during the course of the years—getting so big it looked like the end label for a fruit box at one time. It was re-done from a fine painting at the time of the 1893 World's Fair in Chicago and just this year has been re-designed in the form of the tipped-on sample shown on these pages.

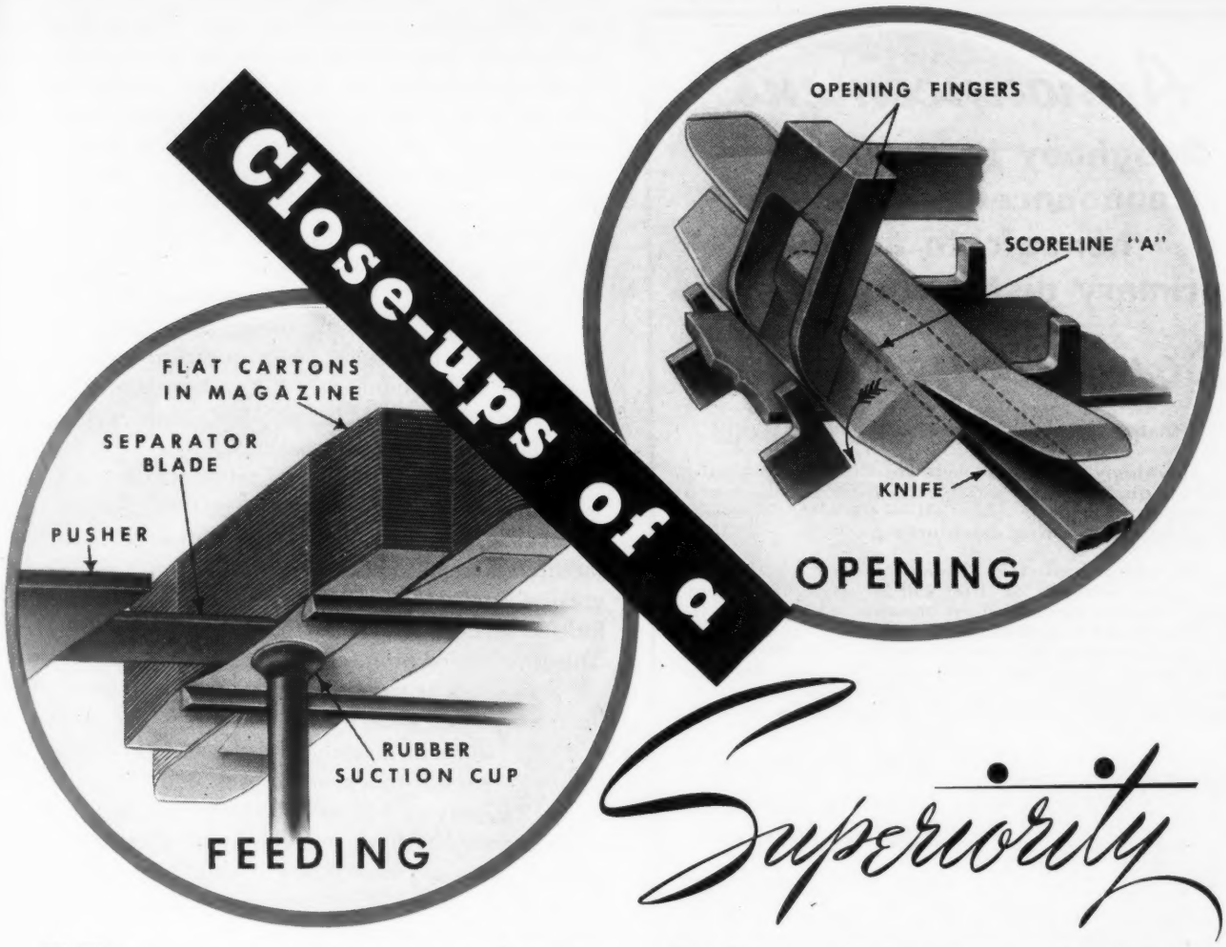
The trade mark in the colors shown here appears on all the company's new boxes. The boxes designed in the company's own studio are all simple and modern in treatment. Predominant color scheme is light blue with bands and stripes of a darker blue. On each, however, appears the trade mark in full color. The family is integrated for each of the product groups. Gray backgrounds are used for the men's products. Two light shades of blue are used for the household lines, although the sheet boxes, for stronger identification, are made in different colors for the various grades of sheets the company makes. A navy blue is introduced for background color for another group of household items such as ironing board covers, wash basket liners, cleaning cloths, etc.

The whole line is one that has extremely good identity, and will be well remembered by customers and sales people throughout the country's retail outlets.

Dresses

One of the first examples of a dress packaged in cellophane is the Stork-Dater illustrated with this article. This is a maternity dress, selling in the popular price range and in a selection of styles and colors. Packages will be on the market soon. The first order from a large Eastern department store was for all the manufacturer could supply in packages. These dresses are designed for counter sale, where they are picked up for color, size and style. The company's trade mark is printed on the cellophane, and the size designation

Close-ups of a Superiority



Here are two close-ups showing how the Jones Constant Motion Cartoner feeds and opens cartons. All the subsequent carton loading and closing operations depend upon doing these first jobs *right*—failure means costly "stops" or "jams".

The flat cartons are stacked in the magazine. The bottom carton is bowed slightly by the suction cup to permit the separator blade to enter between it and the carton above. The carton is now separated positively from the other cartons, and held securely underneath the separator blade for positive pushing into opening position. No dependence on delicate gauging—no chance of missing a carton or feeding more than one.

In the opening position, a knife enters the carton along score line "A", affording a definite support over which the fingers open the carton—POSITIVELY. The knife then withdraws, leaving the carton in position to be picked up by constantly moving transport lugs. *No further handling of the carton is necessary.* All motions are actuated by eccentrics—no cams.

The clear-cut superiority of Jones feeding and opening typifies Jones simplicity and efficiency in handling every phase of cartoning. This superiority is one reason why so many of the biggest names among cartoning machine users select Jones equipment—and why a Jones cartoner will do a better job for *you*.

R. A. JONES & COMPANY, INC.

P. O. Box 485 CINCINNATI, OHIO

REMEMBER THE MAJORITY OF AMERICA'S CARTONED PRODUCTS ARE JONES CARTONED

Announcement

Doughboy Industries, Inc., announces that it will henceforth act as primary distributors for its

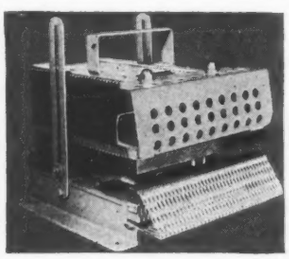
Doughboy Sealers

(Hitherto represented by an independent agency.)

Doughboy Sealers — renowned in the packaging field for quality of materials, machine precision and perfection of sealing operation — have this message for all users of sealing machines:

Doughboy Industries, Inc., designer, patentee and sole manufacturer of the widely used Doughboy Rotary Sealer, has added an ingenious Magnetic All-Position Sealer to a distinguished family. In addition to manufacturing this new machine in its New Richmond plant, Doughboy Industries, Inc., will serve as primary distributor. Inquiries are respectfully solicited for further particulars and delivery dates.

The Famous Doughboy Sealer Models



MAGNETIC MODEL

The all position Model 52 Magnetic Sealer can be used at any angle from vertical to horizontal depending on the bag contents. Requires table space of 12x12 inches. No motor, just plug in on 110–120 A.C. current, no belt, no complicated installation, no power problems.

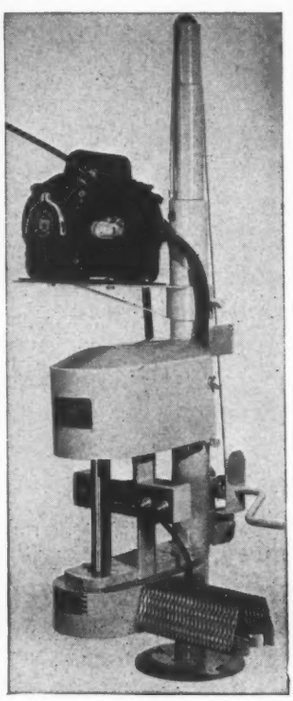
$135.00

ROTARY MODEL

Model 46 Rotary Sealer seals all material that can be sealed with heat and pressure. Operates either manually or on conveyor basis. Rolls travel at 240 lineal inches per minute—just plug in on 110 A.C. current, no installation cost.

$250.00

With Preheater



Prices F. O. B. New Richmond, Wis.

Doughboy Industries, Inc.

Machines Division
New Richmond, Wisconsin

The Seal of Quality

can be seen through the cellophane. The package is a heat-sealed pouch, packaged by hand. It is feasible in this case because the dress is within a price range of dresses bought without trying on. Sales people will have a simpler time keeping such items in order. The package will eliminate all the unfolding and refolding that usually goes on for this type of merchandise.

Packaging of textile items is not only of domestic interest but is receiving a great deal of attention in foreign countries. MODERN PACKAGING is constantly receiving requests for information from many parts of the world on this subject, both in regard to packaging materials and equipment. Latin American countries have been forward-looking in this field, particularly in the matter of transparent packaging.

Rafael Oriol, Milprint, Inc., representative in Cuba, who introduced du Pont cellophane in that country about 1925, writes from Havana: "Cuban textile manufacturers were ahead of the United States in using rotogravure and other printed cellophane envelopes on knitted underwear, both for ladies and gentlemen. This was started profusely about 15 years ago.

"Textile goods such as men's shirts, pajamas, other linen and cotton underwear, bathrobes, and even slacks and sport shirts have usually been packed in cellophane front envelopes with a glassine back."

The majority of women's stockings had been packed in cellophane envelopes in Cuba for many years before the war and many were richly gravure printed, he said. Lower priced lines had overwraps or flyleafs of cellophane inside the boxes.

The leading towel mill in Cuba wrapped 100% of its towels in cellophane before the war limited the supply of cellophane. Two other towel mills followed suit. Woolen and cotton blankets were also sold during the winter season in big cellophane bags.

Most interesting items, Mr. Oriol mentioned, were specially made transparent bags that were adopted by a custom tailor in Cuba for delivering men's linen and rayon suits.

Mr. Oriol believes that when materials are available the rush back to transparent packaging for textiles in Cuba will be greater than ever.

Modern merchandising throughout the world demands the convenience and protection of more and more packaging of items that were not packed before. All trends point to a new world-wide packaging era.

CREDITS: *Stork-Dater: bag—Diaphane Bag Co., Philadelphia, Pa. Chatham baby blanket: material—Lumarith, Celanese Plastics Corp., New York; box—Kellogg Container Division, U. S. Envelope Co., Springfield, Mass. Large blanket box, wash cloth box, shirt, handkerchief and suspender packages: photos—Celanese Plastics Corp. Footlets: envelopes—Thomas M. Royal & Co., Philadelphia, and Diaphane Bag Co. Forsythe boxes: Somerville, Ltd., London, Ont. Fruit of the Loom boxes, Robertson Paper Box Co., Inc., Montville, Conn., and Sutherland Paper Co., Kalamazoo, Mich.; tipped-on labels lithographed by Harris Drew Co., Inc., New York. Cannon and Shannon pre-sealed stocking packages: Container Corp. of America, Chicago; cellophane wraps printed by Shellmar Products Co., Mount Vernon, Ohio; wrapped on machine made by Scandia Mfg. Co., Arlington, N. J. Sulloway wrap: designer—Norbert Jay; cellophane—Sylvania Industrial Corp., New York; printed by Roto-Lith, Ltd., New York. Lady Pepperell boxes: Container Corp. of America; designer, Joseph Binder, New York.*

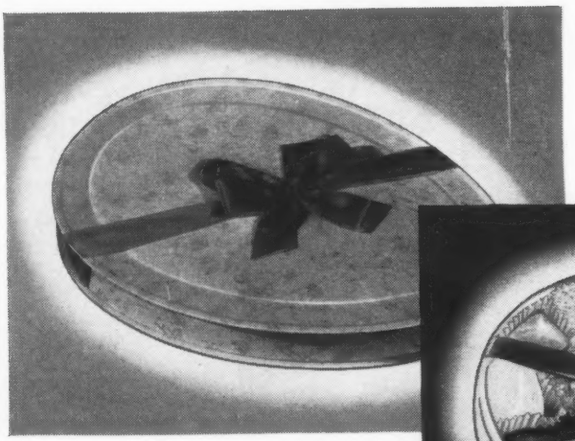
Summertime

Picnic time—snack time—cold lunch time—not far off! And Peanut Butter is high on the list of the Homemaker's musts. Her choice of your products is made easier when you pack in good-looking, easy to handle Hazel-Atlas Glass Containers. They are designed for production line efficiency and sales.

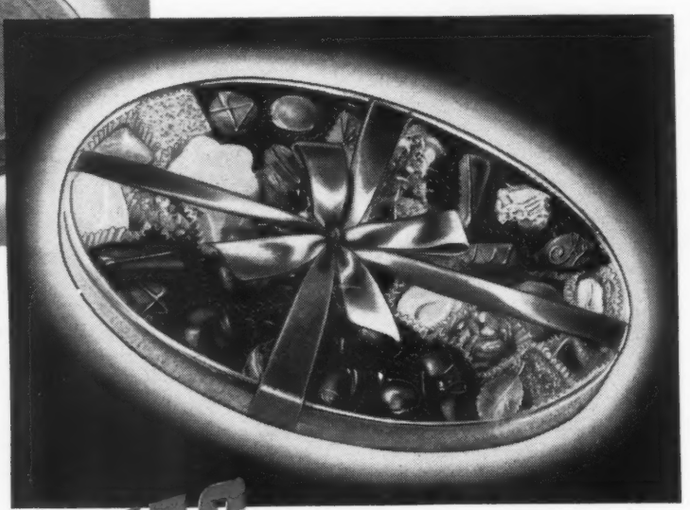
Hazel-Atlas Glass Co. Wheeling, W. Va.

which would you buy?

THIS



OR THIS



Create *Impulse Buying* for your product with SHOWBOXES

A Alarm Clocks
Artists' Supplies
Art Objects

B Baby Shoes
Brushes
Baseballs

C Candy
Cosmetics
Cigarette Lighters

D Dental Supplies
Doilies
Dolls

E Electrical Appliances
Embroidered Linens
Ear Muffs

F Fashion Accessories
Fountain Pens
Foods

G Gloves
Goggles
Golf Balls

H Handkerchiefs
Hosiery
House Slippers

I Ice Bags
Instruments
Infants' Wear

J Jewelry
Jackets
Jellies

K Knives
Knitwear
Knick-knacks

L Lingerie
Leather Goods
Linens

M Make-up Kits
Musical Instruments
Mittens

N Notions
Nightgowns
Needlecraft

O Optical Goods
Olive Forks
Office Supplies

P Perfumes
Pipes
Pajamas

Q Quilts
Quills
Quince

R Razors
Ribbons
Rifles

S Sandals
Shirts
Silverware

T Tablecloths
Toys
Thermometers

U Ukeleles
Underwear
Urns

V Vitamin Tablets
Vacuum Bottles
Violin Strings

W Watches
Water Colors
Wall Clocks

X X-Ray Tubes
Xmas Gifts
Xylophone Keys

Y Yarns
Yuletide Cards
Yarn Bags

Z Zippers
Zircon Rings
Zithers

We're already producing or we'll custom design a Showbox for anything from A to Z

WHAT'S YOURS?

DIVISION OF

CENTRAL STATES PAPER & BAG CO.

2600 N. Broadway, St. Louis 6, Missouri, U. S. A.

CHICAGO
520 N. Michigan Ave.

NEW YORK
489 Fifth Ave.

DETROIT
1951 East Ferry St.

SHOWBOX

If You're Making Plans...

Perhaps you can't *complete* your plans now... but *now* is the time to *perfect* them. Here are three excellent descriptive folders prepared to help you.

B-132 describes 12 modern fastening machines and methods for efficient, profitable Shipping Departments.

B-157 describes the sales magic that often greets small items when "Bostitched" to display cards, singly or in groups.

B-175 gives an interesting story of "Bag Sealing, Tailored to Your Needs."

There are other booklets, too, on other fastening needs in your office or plant . . . and a new general folder showing fifty representative stitching and stapling machines from nearly 800 in the Bostitch line.

Name it and we'll send it. Use coupon below.

BOSTITCHING
offers you the most in stapling

Experience... 1896 — 50 years specializing in fastening

Engineering... — 18 research engineers

Selection... — Nearly 800 models

Service... — 91 offices, over 200 Bostitching specialists — increasing as products and trained men become available.

BOSTITCH
fastens it better, AND FASTER with wire
ALL TYPES OF STAPLES APPLIED BY MACHINES
ALL TYPES OF MACHINES FOR APPLYING STAPLES

Bostitch (Boston Wire Stitcher Company)
53 Duane Street, East Greenwich, R. I.
(Bostitch-Canada, Ltd., Montreal)

Please send literature checked:

B-132, Shipping room tools and applications
B-157, Bostitching — the modern carding method
B-175, Bostitching for bag sealing

Send other information on fastening for.....

.....

Send new General Folder B-188

Name.....

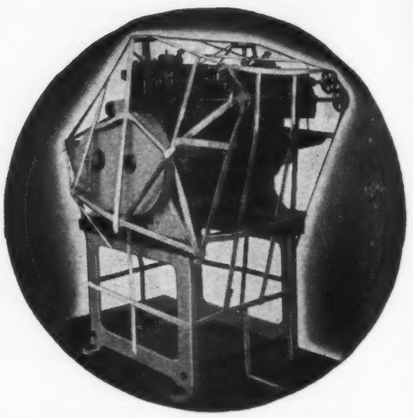
Company.....

Address.....

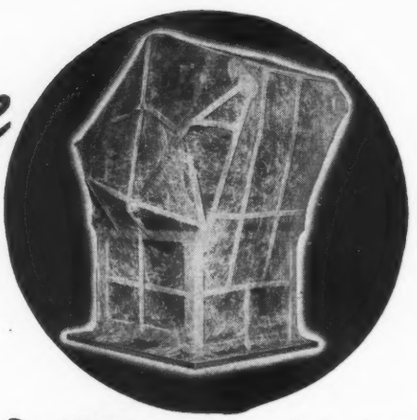
BREVON

by ZAPON

THE SPRAY-ON—STRIP-OFF *Plastic Package*



1. First step before applying **BREVON.** Objects with projecting parts are streamlined by covering with a lattice-work of tape strips.



2. **BREVON** webbing solution is sprayed over the latticework, bridging gaps as wide as 16 inches with a gossamer network. One gallon of webbing solution covers 100 square feet of surface.

FROM A PART TO A PARCEL IN 3 EASY STEPS

Originally developed for the Army and Navy, Zapon's **BREVON** is used to package machine tools, radar, automotive equipment—anything requiring protection from the elements during shipment and storage indoors or out.

3. **BREVON** film-forming solution, sprayed over the web, quickly air dries to form a tough plastic film up to .030-.040 inches, depending on storage time anticipated.

For long term storage, a desiccating agent to maintain a non-corrosive atmosphere may be included in the package. If at any time it is necessary to replace the desiccating agent, the film can be easily opened and resealed.

BREVON can easily be stripped off whenever desired.

BREVON by Zapon coats the areas to be protected with a tough, non-inflammable, anti-corrosion film that resists weather, wear and temperatures ranging from —40° to +200° F. Made to last for years, it can be stripped off easily whenever desired. Zapon's **BREVON** is available today for your packaging needs. Write or phone for complete information.

ZAPON

ZAPON DIVISION
ATLAS POWDER COMPANY
Complete Manufacturing . . . Research . . . Sales
Stamford, Conn. **North Chicago, Ill.**

SPECIALIZED PRODUCTION FINISHES . . . *Doing Tomorrow's Job Today!*

Mark-it for Market

with

PALM BROTHERS DECALS

House of Croydon points with pride to the identification of its fine toiletries with Palm Brothers Decals. And justly so, for discriminating producers everywhere select Palm Brothers Decals for immediate customer recognition of their products — distinctively and positively.

Your products, too, will take on additional character when marked with Palm Brothers Decals. You'll find decided advantage in their ease of application, their permanency and economy.

See for yourself how a Palm Brothers Decal can benefit your product. Write today. We'll be pleased to prepare individually designed sketches, quote prices, and furnish complete information. No obligation, of course.

THE PALM BROTHERS *Decalcomania Co.*

CINCINNATI . . 12 . . . OHIO . . U.S.A.

In the fight for sales, eye-appeal wins! Use Lamcote's gleaming protective richness to increase sales power of any package

1001 OTHER SALES STIMULATING USES
Point of purchase advertising displays, broadsides, mailing folders, catalogs, die-cut novelties, box-wraps, fabrics and specialties, all look richer — withstand handling — resist soil — wear longer — multiply their sales when Lamcoted.

LAMCOTE

Get the edge on competition with a package that commands the eye! Lamcote adds rich brilliance to beauty of design and fine printing. Makes prospects reach for the "expensive-looking" package. And more . . . Lamcote's gleaming, transparent protection adds long life and tensile strength to every surface it covers. Handling cannot mar package or product. Freshness and beauty are sealed in . . . moisture and air are locked out. Impervious to counter soil, the Lamcoted package indefinitely retains its eye-compelling, sales-stimulating beauty.

LAMCOTE IS THE PROCESS

of permanently affixing a lustrous, transparent, tough film of plastic to the surface of paper, board, fabric or other material.

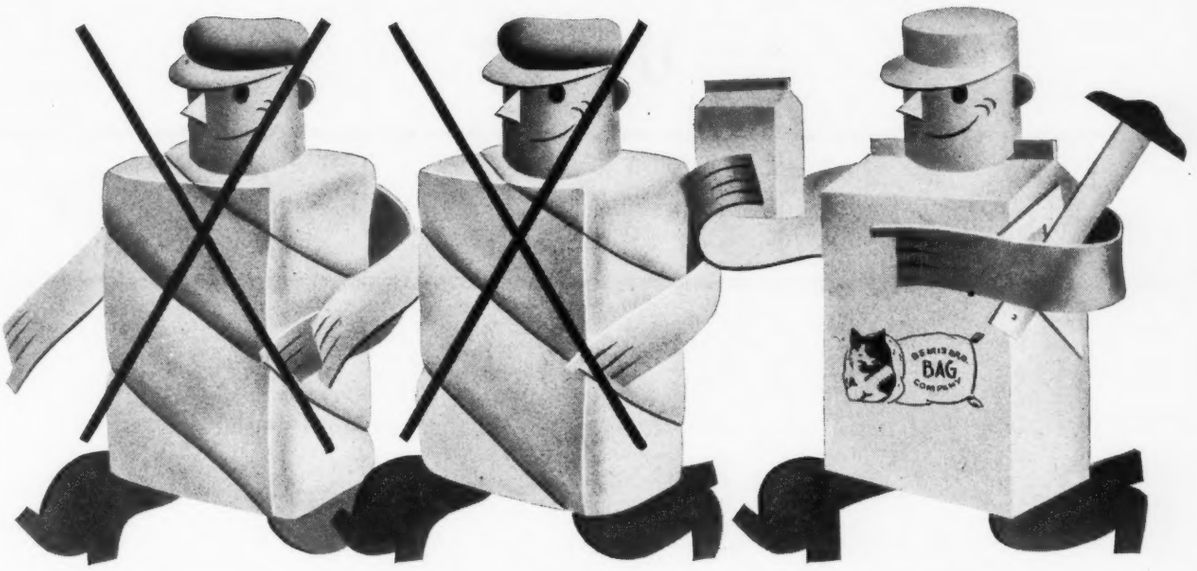
ARVEY CORPORATION

CHICAGO JERSEY CITY

METAL PAPERBOARD PLASTIC

Lamcote REFLECTS THE QUALITY OF QUALITY PRODUCTS

Are you using Three men on a wrapping job



when a special paper bag will do the work of two?

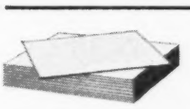
Yes, if you now wrap your product in paper, there is a good possibility that Bemis can develop a bag for your product that will give you savings in time, labor and materials in your packaging department . . . perhaps save the services of two or more men now engaged in wrapping.

Call Bemis Paper Bag Specialty Division Today

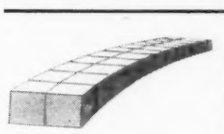
The same Bemis Packaging Specialists whose ingenuity developed bags for the products illustrated, will study your operations upon request. Their recommendations may result in important competitive advantages and savings in packaging costs. Mail coupon for immediate action.

SUCH PRODUCTS AS THESE—NOW WRAPPED IN PAPER —MAY BE PACKED IN BAGS

Trees can now be shipped in special paper bags, instead of being wrapped. Advantages: Faster, easier handling; moisture around roots is retained; longer, safer shipments are possible.



Wallboard—Six sheets, 4′ x 12′, can be slipped into a special paper bag in one simple operation. Advantages: Savings in labor, time, materials, floor space in your packing departments.



100-Pound Cubes of Firebrick—A special paper bag makes this hard-to-wrap products easier and cheaper to package. Other advantages: Original moisture retained longer; quality and shelf-life prolonged; return of goods minimized.

BEMIS BRO. BAG CO.

PAPER BAG SPECIALTY DIVISION • 1054 S. VANDEVENTER, ST. LOUIS, MO.

COUPON

Gentlemen: Please have a Bemis Packaging Specialist call on me. I'm interested in a special paper bag for_____
(product)

*Name*_____

*Firm Name*_____

*Address*_____

*City*_____ *State*_____

LOW		
	UNIT	
		COST

The best test for packaging machinery or any other production equipment is the cost of the equipment figured in relation to its output. Cost must of course include maintenance, repair and replacement.

Maintenance, replacement and repair are minimal on Standard-Knapp machines. Every Standard-Knapp machine is a quality machine—value is built into every part. The engineering design is the result of years of machine-building experience. No design is static, all are adaptable to specific packaging problems. For these reasons, Standard-Knapp machines are top standard for low unit cost in most packaging industries.

We specialize in designing and building, case-packers, case-sealers, bottle packers, bag fillers and labellers, but on many occasions we have designed and built special equipment for specific purposes.

STANDARD-KNAPP CORP.

MANUFACTURERS OF CASE SEALING, CASE PACKAGING AND CAN LABELING MACHINES
FACTORY and GENERAL OFFICES—PORTLAND, CONNECTICUT

570 Lexington Avenue, NEW YORK 22, N. Y. — 221 North LaSalle St., CHICAGO 1, ILL. — 145 Public Square, CLEVELAND 14, OHIO — 300 Seventh Street, SAN FRANCISCO 3, CALIF.

420 S. San Pedro Street, LOS ANGELES 13, CALIF. — 3224 Western Avenue, SEATTLE 99, WASH. — 1208 S. W. Yamhill Street, PORTLAND 5, OREGON — 349-350 Paul Brown Bldg., ST. LOUIS 1, MO.

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Clearsite* *Plastic Containers*

*Registered U. S. Pat. Off.

more USEFUL FEATURES — for more TYPES of products

In CLEARSITE, you get *more* than visibility; *more* than colorful eye-appeal; *more* than sturdy protection to contents,—in CLEARSITE you get them *ALL!*

Shatterproof protection, distinctive imprinting, applied during the manufacturing process, an over-all distinction; these features make CLEARSITE containers ideal for packaging products as illustrated. CLEARSITE containers carry with them a certain prestige not found in any other type of container.

CLEARSITE*—Cellulose Acetate—Safety Base

Samples and suggestions gladly submitted

SEAMLESS
SHATTERPROOF
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manufacturing process

CELLUPLASTIC CORP.

CELLUPLASTIC CORPORATION

PLASTIC CONTAINERS
AND
PLASTIC PRODUCTS

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NEW YORK OFFICE—630 FIFTH AVENUE WEST COAST CONTAINER SERVICE COMPANY, LOS ANGELES 27, CAL

Here's a photo of the earliest printing machine.

"A HAND-CARVED BLOCK OF TEAKWOOD FROM THE ORIENT"

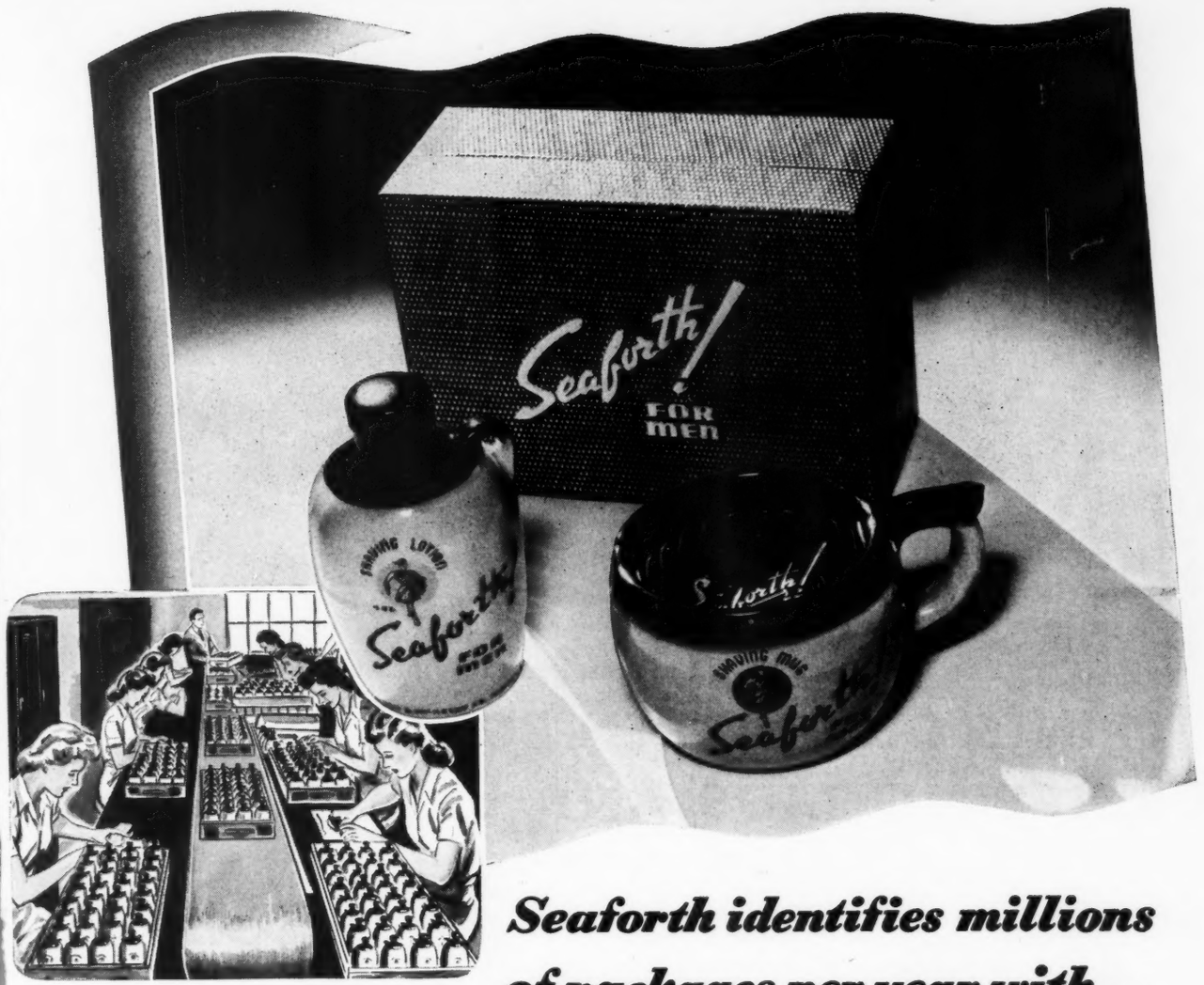
Color is smeared on the high spots of the design and then pressed on the paper, exactly the same as is done by a rubber stamp—how would you like to print up a carload of paper by this process? We produce printed packaging paper on presses running 600 feet per minute.

Designs are from hand or acid-engraved rollers (rotogravure or intaglio printing), type metal rollers or plates (surface printing), rubber rollers or plates (aniline printing).

The process is determined by the results required. If you wanted your photo reproduced all over the surface of a paper, we would recommend rotogravure. If you wanted your signature only, it might be done very satisfactorily with rubber plates and aniline ink.

"Know-how" saves many headaches . . . dollars . . . disappointments. We usually know-how.

MATTHIAS PAPER CORPORATION, 165 W. Berks St., Philadelphia 22, Pa., Box 127, Wellesley Mass., 602 Guilford Bldg., Greensboro, N. C.



Seaforth identifies millions of packages per year with ...

MEYERCORD DECALS

These famous, prize winning Seaforth packages achieve sparkling "eye-appeal" with colorful Meyercord Decal decorations and identification. According to the Alfred D. McKelvy Co., makers of the famous Seaforth grooming essentials, production lines are easily set up to handle thousands of applications of Meyercord Decals per hour. Decals can help sell your product too. They're washable, durable, acid and moisture resistant. Any design or colors can be reproduced for quick application on glass, crockery, wood, metal, plastic fabric, composition. They stay bright for the life of the product! Free technical service. Write for details to Dept. 8-6.

Send for new slide-rule type Meyercord Nameplate Selector to assist you in the selection of the right Decal for use as trademarks, instructions, patent data, etc., particularly on difficult surfaces. Write for one today!

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• IDENTIFY
• DECORATE
• ADVERTISE
your products with
MEYERCORD DECALS

THE MEYERCORD CO.

World's Largest Decalcomania Manufacturers

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PROMPT DELIVERY!

TYPE (write or draw) ON STENCIL SNAP IT ON.. THEN PRINT

No. 3 MULTISTAMP Stencil
New business methods are required to meet
new business conditions.
Time is the most expensive industrial
commodity in the world today.
MULTISTAMP makes your valuable time pay
dividends. It's the world's quickest and

Just type, write, draw or trace on the stencil • Snap it on Multistamp. Quick, automatic, touch no ink • Print on postcards, shipping tags, boxes, etc.

THE COMPLETE ALL-PURPOSE PRINTING OUTFIT... NO TYPE TO SET!

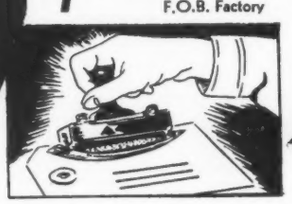
PRINTS ON WOODEN BOXES, CARTONS, SHIPPING TAGS AND LABELS, CLOTH

...AS WELL AS ON CARDS, PAPER, ON OR INSIDE BOOKS OR FILES, ETC.

1 Rubber Stamp Size for Shipping Tags, Labels, Cards, etc.

The No. 1 MULTISTAMP is a flexible rubberless hand stamp that takes the place of rubber stamps. Prints up to 5 lines of type, 3 in. long. Eliminates retyping and slow hand-addressing — it has a thousand uses around any office or shipping department.

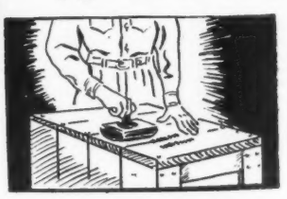
Complete with supplies in compact case. Weight: 2lbs. **7.50** Non-Mechanical Outfit. F.O.B. Factory



3 Post Card Size for Larger Tags, Labels, Notices, etc.

The No. 3 MULTISTAMP is the "Rocker Type" Duplicator that prints on practically anything. Size 5¼ in. long by 3¼ in. wide. A single stencil can contain up to 32 lines of type. No experience required to operate MULTISTAMP.

Complete with supplies in sturdy case. Weight: 4 lbs. **15.00** Non-Mechanical Outfit. F.O.B. Factory.



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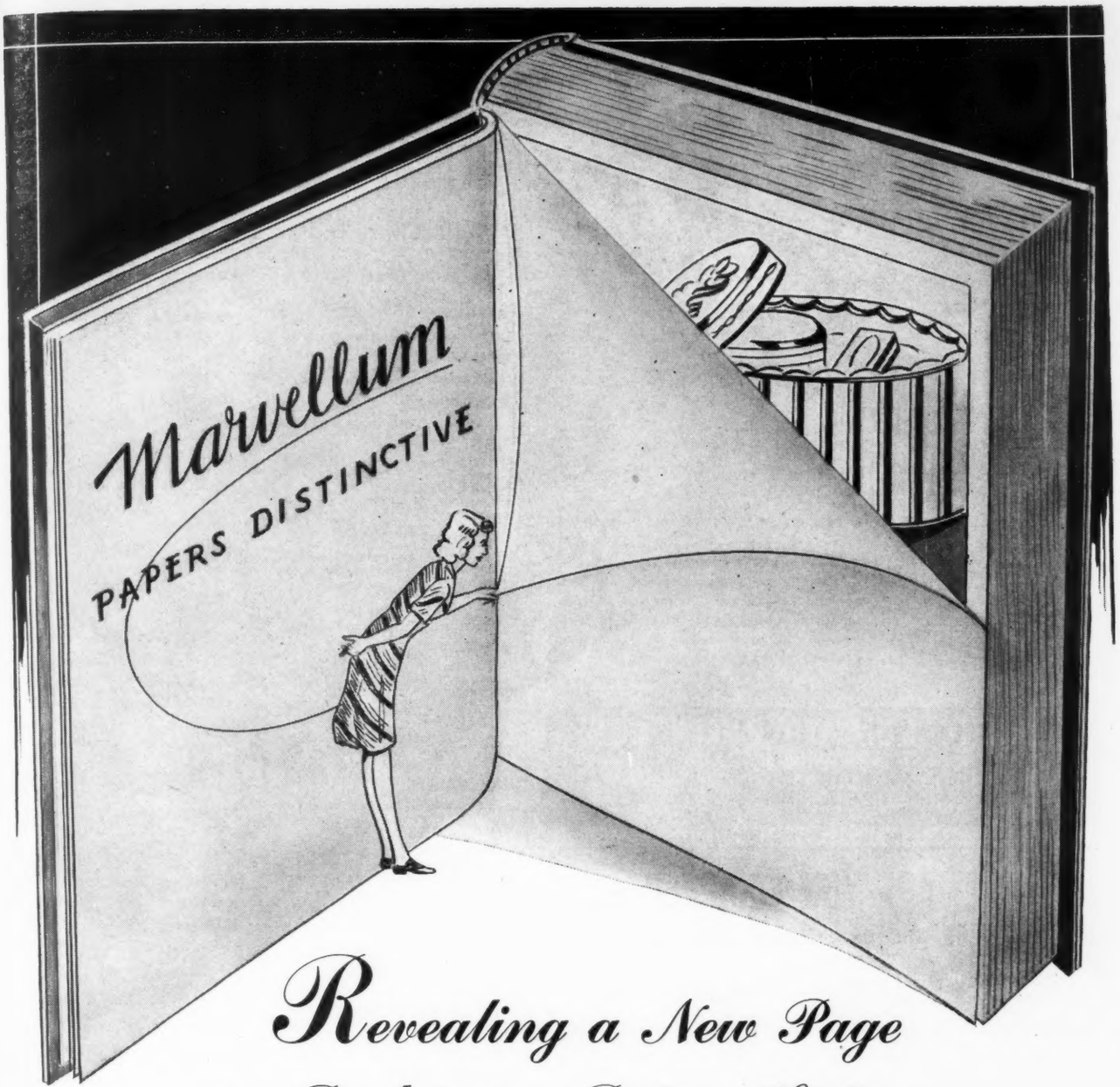
Every MULTISTAMP Outfit is Guaranteed for 5 Years! Write for Illustrated Folder Showing Other Complete Outfits for $25 to $82.50.

MULTISTAMP
STENCIL DUPLICATOR

DEALERS: Write for our new, liberal Dealer Plan

MANUFACTURED ONLY BY THE MULTISTAMP CO., INC. NORFOLK, VIRGINIA



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. . . and with this new page is ushered in a new era in Packaging Papers.

Four years of limited production have given way to new ideas, new designs and new materials by Marvellum, that mean new sales-stimuli, new profits and new prestige for you when you stock this forthcoming line of "Papers Distinctive."

These new papers are attractively styled with artistic designs and appealing color schemes, alive with action and buy-appeal. They are destined to lead the style parade of Packaging Papers.

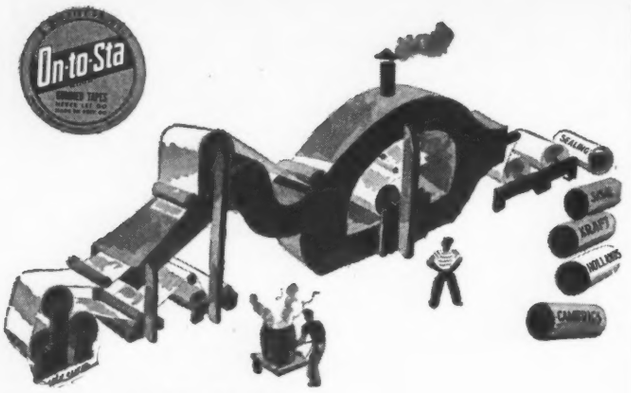
This line will be available soon. The papers are now in production and sample books will be completed within a short time.

In the meantime send along your requirements, we'll do our best to serve you.

THE MARVELLUM COMPANY

• Papers • Distinctive •

HOLYOKE
MASSACHUSETTS



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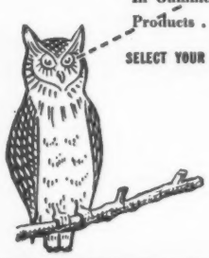
In Gummed Tapes and Specialties, ALWAYS USE *"On-to-Sta"* Products . . . because they're *made to Stay On.*



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* *KIMPAK (trade-mark) means Kimberly-Clark Creped Wadding*

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Float Packaging
How to give your product greater shipping safety... in a better-looking package with...
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Get this NEW FREE BOOK of better ideas for packaging your product!

See how America's largest industries cut costs and corners in their packaging methods!

Whatever your product—if you have a product-packaging problem—you'll find ideas you can use in this new, free book about KIMPAK* Float Packaging.

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Please rush my FREE COPY of the new idea book, "KIMPAK FLOAT PACKAGING".

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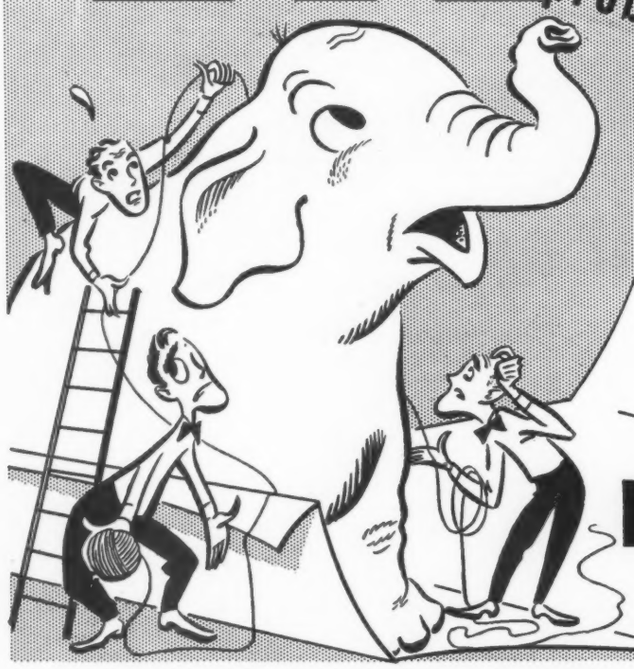
Attention of _____

BIG packaging problem?



. . . USE OUR *Complete* PACKAGING SERVICE!

Big job or small one, Stevens-Wiley has the facilities, the "know-how" and the personnel to see it through quickly and efficiently. For handling all types of Dry Materials, chemicals, cosmetics and household products in cartons, cans, set-up boxes, round paper packages or envelopes . . . for mixing, filling, weighing, labeling on high speed automatic equipment . . . you will find it most economical to use the Stevens-Wiley custom packaging service.

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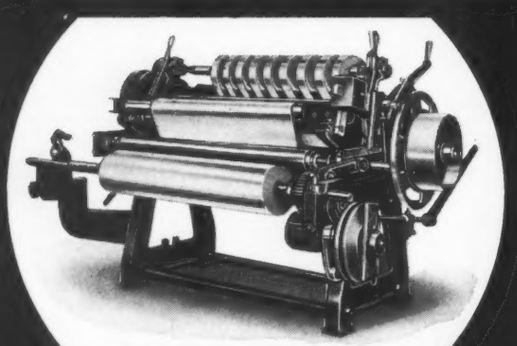
FOR COMPACT, CLEAN-CUT ROLLS OF CELLOPHANE, SYLPHRAP, ETC.



CAMACHINE 24-7

Camachine 24-7 is a slitting and roll-winding machine for Cellophane and similar transparent materials, especially designed to overcome the difficulties peculiar to handling such products. The delicacy of the material and its lack of uniformity in thickness necessitate extra care in handling, which is provided for in this machine. The end result is a distinctly better roll that brings more economical and satisfactory performance in the later process of packaging. Operation is simple and requires no skill.

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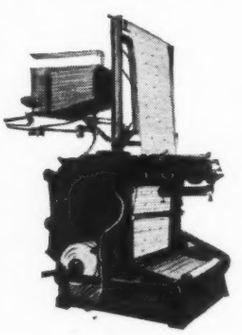

In addition to turning out The Milgate Line of "Specialty Papers," we have facilities available in our mills for converting your own paper stock to order.

From the standpoint of delivery, it will naturally operate to the customer's advantage for him to supply the necessary stock. Milgate manufacturing resources give you the benefit of research and improved methods, developed for the production of special, protective, government packagings. It will pay you to investigate this custom converting service...now.

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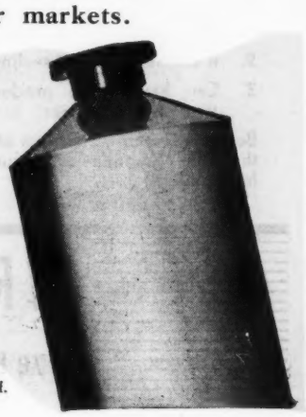
Easy to open — easy to use — safeguards flavor, consistency — assures exact dosage

Individual portions of coffee, dehydrated soups, juices, pastes, hydroscopic powders and granular products, ointments, and toilet preparations will be more acceptable to your Peace-time markets in sanitary, convenient WIRZ Mono-Pak single-use collapsible metal tubes. Hermetically sealed, non-refillable, economical, WIRZ Mono-Pak Tube preserves your product's original freshness, purity, consistency, flavor, or scent. Prevents substitution, dispenses exact quantity. Product reaches your customer in perfect condition. Easy to open, easy to use, WIRZ Mono-Pak Tube can be attractively decorated. Requires no labeling or capping. This unusual merchandising tube for liquids, pastes and powders should be in your Peace-time packaging and sampling plans. WIRZ Tubes are practical in different sizes for a variety of products . . . with suitable linings to combat corrosion and seepage. Count on WIRZ Tubes to protect your product, your brand name and your markets.



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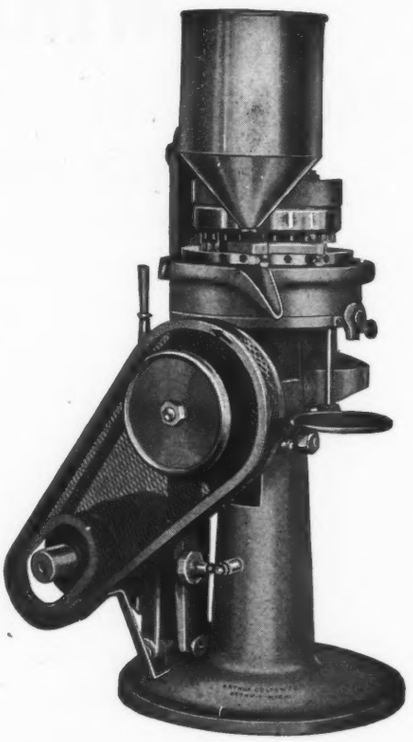
New series 200–25 tablet machine embodies years of experience in building equipment, incorporates refinements giving an entirely new standard of performance.

Special features include new variable lower punch pull-down track plus micrometer cell adjustment minimizing punch and die wear and practically eliminating capping; solid steel tie bar; centrally located main drive shaft; lower center of gravity. Range of operating speeds is provided by built-in variable speed drive. Power transmitted through lever operated disk clutch. Special drive materially reduces power consumption. Standard speed motor. Capacity per minute: 300–800 tablets. Diameter of tablet 3/16" to 5/8", maximum depth of cell: 11/16". Floor space: 30" X 36", height: 60", net weight: 1025 lbs.



ARTHUR COLTON COMPANY
2602 E. JEFFERSON AVE., DETROIT 7, MICHIGAN

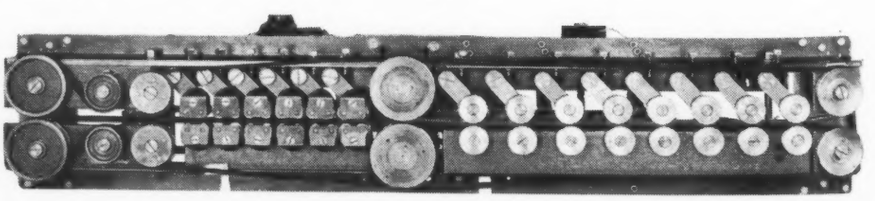
WRAPADE *Introduces*

another in their well-known line of heat-sealing machines, born of thirteen years of progress and experience in manufacturing machines to help increase *your* production.

New Wrapade continous heat-sealer in action

1. This machine is quickly adjustable for heat, pressure, speed and has elevation control for varying bag sizes.
2. It can seal all heat-sealing bags.
3. Can handle the production of two filling machines.

Bottom view of mechanism of the new Wrapade continous heat sealer



call or write

WRAPADE MACHINE CO., INC.
FACTORY OFFICE
778 Bergen St., corn. Grand Ave. Brooklyn 16, N. Y.
Telephone: NEvins 8-8052-3

Today's self-service stores demand packages that are self-sellers! Modern merchants prefer products packaged to *stand out* and sell! They know (and surveys show) that most buying decisions are made at the point-of-sale.

Products packaged in A.C.M. *Clay Coated* Cartons *"stand-out"* in any competition! Their pure white, velvet-smooth surface, produced by an exclusive, continuous process, enhances any design—gives perfect reproduction in either letterpress or lithography. Halftones have true realism, colors have brilliance and luster. The package does much to sell the quality of its contents.

It will pay you to investigate A.C.M. Clay Coated Cartons for your products. While tremendous demand for these famous cartons has production taxed to the utmost now, plant facilities are being expanded as rapidly as possible to meet future requirements.

CHECK THESE A.C.M. SUPERIORITIES

Whiter board—more uniform—velvet-smooth surface—more rigid—tougher—better folding qualities—greater luster and brilliance—perfect reproduction in either letterpress or lithography.

AMERICAN COATING MILLS, INC.

America's Largest Producers of High Quality Clay Coated Cartons and Carton Board

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The Secret is in the SURFACE

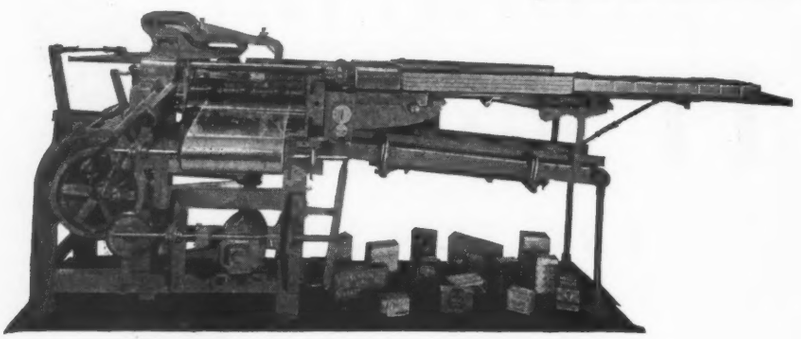
A.C.M. CLAY COATED CARTONS

AND CARTON BOARD

SMART FITTING OVERWRAPS

IT PAYS TO WRAP
THE HAYSSEN WAY

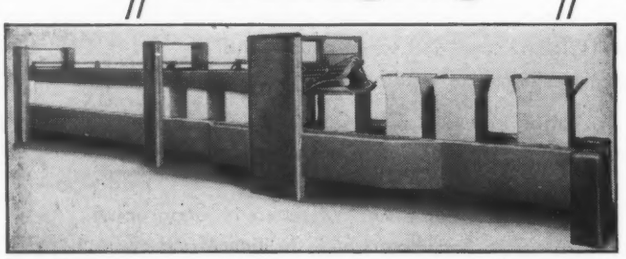
With the Lady of the House doing so much impulse-buying at self-service stores, it is smart business to check the appearance of your package for its attractiveness and effectiveness. Is it ready to meet the impending competition? What meets the eye may make her buy. Every detail plays an important part in the final result. Your overwrap, when placed around your package by the HAYSSEN will have that trim and tidy look that appeals to the purchaser and builds confidence in the product. Write the factory today and obtain the facts on Hayssen low-cost, high-class wrapping on machines that are daily pleasing more and more food packers.



Hayssen Mfg. Company
Sheboygan, Wis.

HAYSSEN ELECTRONIC CONTROLLED **WRAPPING MACHINES**

Designed for Efficient Packaging



ABC ***Automatic Top and Bottom*** **CASE SEALER**

Modern, streamlined design . . . requires no operator. Seals 30 cases per minute . . . both top and bottom, top only or bottom only. Fingertip control. Extra-rigid construction. Adjustable to 6″-18″ width, 8″-30″ length, 3″-28″ height.

Special Engineering Service
Packaging machines correctly designed and constructed to fit your own special requirements.

ABC PACKAGING MACHINE CO.
QUINCY, ILLINOIS

GIVE YOUR PRODUCT NEW PERSONALITY USE LANOVA SPECIALTY AND BOX PAPERS

Instant delivery—right from stock on most items.
- Metal Foils
- Fancy's
- Embossed
- Wood
- Pyroxylin
- Velours
- Trade Marks
- Flints

Write for sample sheets and books — no charge or obligation.

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109-111 Greene Street • New York 12, N. Y. • WOrth 4-6426

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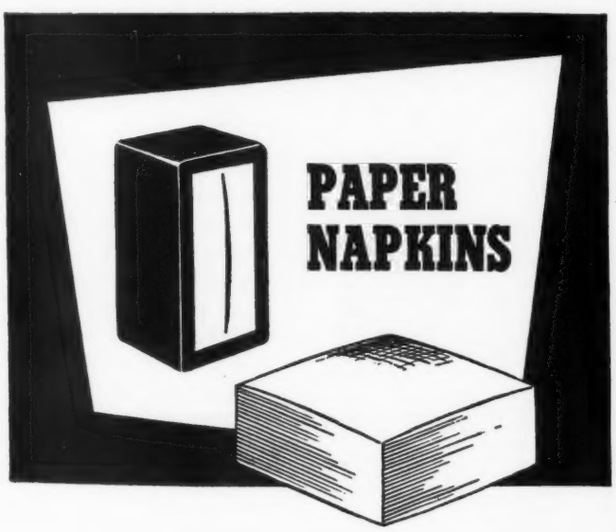
ESTABLISHED 1826
"STAR" ADHESIVES

BINGHAM BROTHERS

BINGHAM BROTHERS COMPANY • Main Office: 406 Pearl Street, New York 7, New York • Baltimore, Philadelphia, Rochester, Newark and Garwood, N. J.



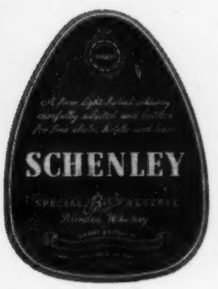
ANY fold desired. Plain, embossed or printed—our machines will make them. • High speed. An excellent product. Lowest production costs. • Start your post-war production program with the best equipment. Plan for this production now. • We will send complete information — ask us.

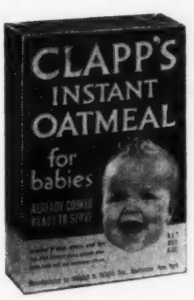
HUDSON-SHARP
MACHINE CO • GREEN BAY • WIS

★ ★

TO DO AN *Effective* SELLING JOB

Your LABEL must be effectively designed and skillfully lithographed to induce sure-fire sales day after day. Quality labels by Sale Lithograph reflect the superiority of your product.





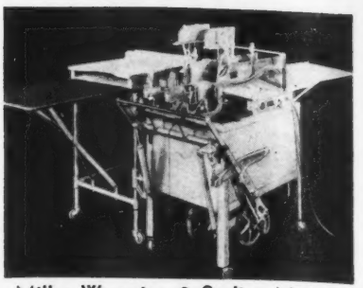
Your WRAPPER should be designed and lithographed to impress itself upon your prospect's mind. Wrappers produced by Sale Lithograph stand out!

Your COUNTER or WINDOW DISPLAY should be worth the valuable space given it by the store. Dealers always assign their best spots to the most attractive displays.

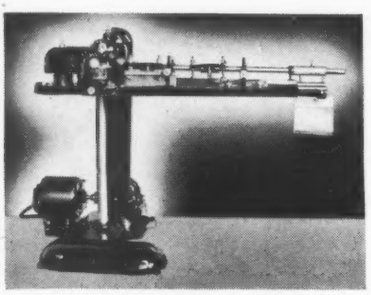
The SALE LITHOGRAPH CO.
Color Lithographers
210 WASHINGTON STREET BUFFALO 3, N.Y.

Since 1904 Devoted to the Production of Fine Lithography

AMSCO *for your*
PACKAGING MACHINERY
Requirements



Miller Wrapping & Sealing Machine

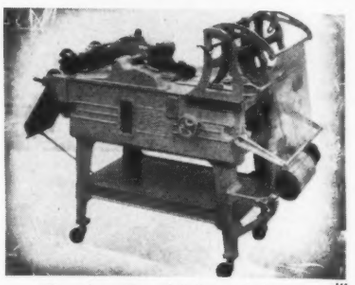


AMSCO Hi-Speed Rotary Bag Sealer

For greater efficiency, speed and economy, AMSCO offers equipment for:

Bag sealing • Bag making
Bag & carton weighing & filling
Bag aligning & conveying
Wrapping • Sheeting & gluing
Sandwich making & wrapping
Hand & foot operated sealing devices

Literature available.



Simplex Bag Making Machine

AMSCO PACKAGING MACHINERY, INC.

31-31 Forty-Eighth Ave., Long Island City 1, N. Y. • STillwell 4-4840

Represented in Mid-West—Miller Wrapping & Sealing Machine Co., Chicago 6, Ill.
Represented on Pacific Coast—Simplex Wrapping Machine Co., Oakland 6, Calif.

FINE WOODEN CHESTS BOXES·DISPLAY CASES

"From Standing Timber to Finished Product"

We specialize in the design and manufacture of silverware chests, jewelry and display cases, wooden boxes, packing cases and other wood containers. Your inquiry invited.

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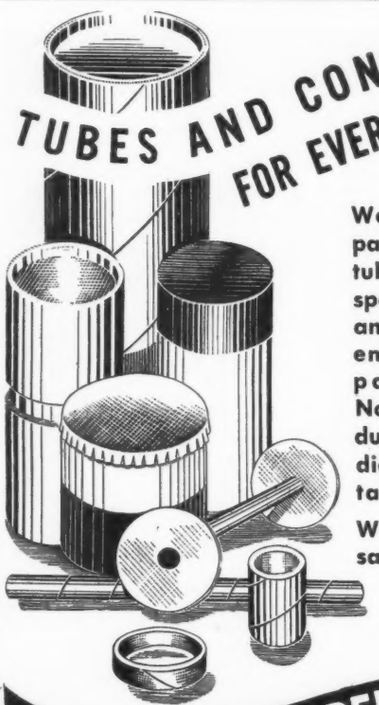
Manufacturing Company

STOUGHTON, MASSACHUSETTS



TUBES AND CONTAINERS FOR EVERY PURPOSE

We manufacture paper cores, mailing tubes, ribbon blocks, spools, paper boxes and cans with metal ends, curled ends, paper cap ends. Noted for fast production—any length, diameter, wall. Containers developed.

Write or call for samples.

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We PACKAGE Your PRODUCTS For You

OUR custom packaging service handles all candies, nuts and free-flowing food products—packs them hygienically in cellophane and glassine bags, acetate containers, glass jars, — also—press-on covered cans, tubular packages, etc. We use your containers or design them for you. Our service includes shipping direct to your customers.

Our production facilities can handle large-volume packaging. Write now for particulars.

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Wax— has ALWAYS Been our Business!

As pioneers of many outstanding developments in microcrystalline wax manufacture, Bareco's scientists have been helping to solve perplexing packaging problems since 1928—long before the impetus given the use of such materials by the protective demands of World War II. Bareco Waxes have always been the object of especial care in the selection of proper raw materials, manufacturing procedure and laboratory control. Test their unusual properties to solve *your* packaging problems.

BARECO Microcrystalline WAXES

HIGH MELTING POINTS—(170/175° F.–190/195° F.)

HIGH MOISTURE VAPOR RESISTANCE

EXCELLENT ELECTRICAL AND ADHESIVE CHARACTERISTICS

EXCELLENT HEAT-SEALING PROPERTIES

ODORLESS — CHEMICALLY INERT — TASTELESS

Samples Available in Black, White and Amber.

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TULSA, OKLAHOMA

B

WIDENER BLDG.
PHILADELPHIA 7, PA.

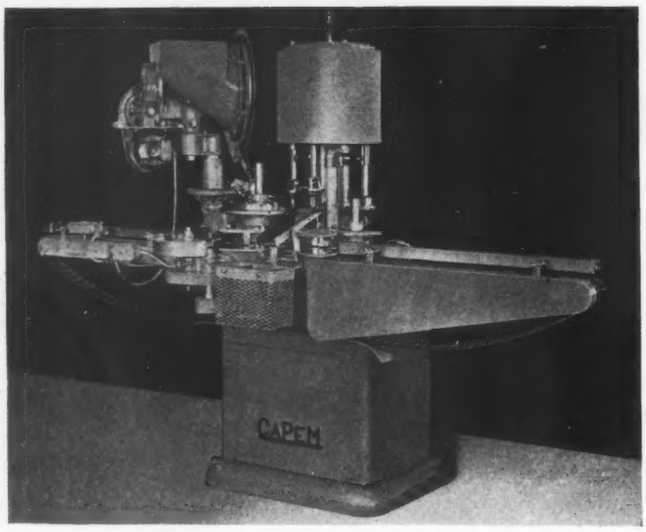
NOVAR DECALS INDIVIDUALIZE STANDARDIZED PACKAGES

Novar colorful decals, made to your order in your design (or we'll create one especially for you), in a complete range of colors, lend the touch of individuality to the simplest, most standardized container! Applicable with equal ease to glass, ceramic and plastic surfaces, they can be put on the package right in the packager's plant as an integral step in the production line. Many packagers rely on a simple standardized container (the easiest to buy in these days of shortages) and utilize Novar decals to perform the decorative, identification function.

PALM, FECHTELER & CO.

220 W. 42nd St., New York 18, N. Y.

21 E. Van Buren St., Chicago 5, Ill.



CAPEM

. . . . APPLIES ANY SCREW-CAP AT 2000 TO 7500 AN HOUR . . . DELIVERS A LEAKPROOF SEAL . . . AT LOW COST

Available in 1, 2, 3, and 4 spindle models

Write for prices

CONSOLIDATED PACKAGING MACHINERY CORP.
BUFFALO 13, N.Y.

Transparent Plastic
BOXES, CANS, COUNTER DISPLAYS

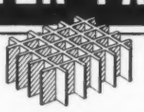
These clear plastic containers demonstrate the product at the point of sale. Especially fine for packing appetizing food products such as nuts, candies, cookies, pretzels, etc.

Made of transparent acetate. Odorless, non-inflamable, non-cracking. Send for samples and price list.

Some territories open for experienced packaging salesmen

WEINMAN BROTHERS
Transparent Box Headquarters
325 N. Wells St., Chicago, 10

FOR BETTER PACKAGING



WRITE, PHONE or WIRE for Quotations on Your Requirements for

PARTITIONS

IMMEDIATE ATTENTION
Given to Requests for Estimates

Prompt Deliveries Guaranteed

PETER

Reasonable Prices Assured

PETER PARTITION CORP.
Manufacturers of Partitions for Paper Boxes
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Telephone: FOxcroft 9-2129

FOOD PRODUCT IDENTIFICATION

The Modern Way

Specially developed for banding and labeling foods and other preparations in conformity with Pure Food Laws. In the manufacture of the paper itself, all government regulations have been adhered to.

HEAT SEAL FOOD LABEL

Technical detail: Temperature for proper heat sealing depends upon length of time of contact with heating element and amount of pressure applied. 250°-350° F. is satisfactory on most equipment. Sticks to moisture-proof cellophane at 250°-350° F. We will be glad to supply you with test sample sheets.

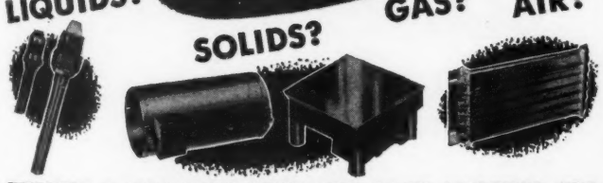
The label samples shown here originally produced on HEAT SEAL FOOD LABEL, are reproduced by courtesy of St. Louis Sticker Co., St. Louis, Mo.

McLAURIN-JONES CO.

322 MacLaurin St., Brookfield, Massachusetts • Offices: New York, Chicago, Los Angeles

What is it you want to HEAT BETTER ELECTRICALLY...

LIQUIDS? SOLIDS? GAS? VAPOR? AIR?



THERE'S A WATLOW UNIT FOR EACH HEATING JOB

Watlow Electric Heating Units are made in many types, sizes and capacities for almost every job where accurately controlled, clean and efficient heating is desired.

Strip Units—Cartridge Units—Immersion Heaters—Band Heaters—Hot Plates. Wide ranges of temperatures are provided in many wattages and in standard voltages. Thermostatic and switch controls.

Send for this Catalog!

Consult us about your heating problem.

SPECIALISTS IN ELECTRIC HEATING UNITS

WATLOW

ELECTRIC MANUFACTURING COMPANY

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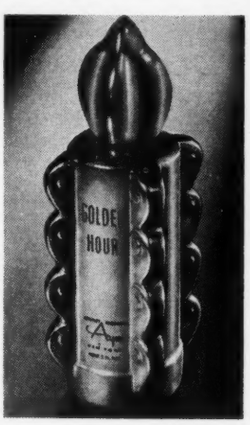


Decorators on Glass and Plastic Containers Since 1936

4 Colors in One Operation —Finest Detail

Anigraphic Process, Inc.

11 BROADWAY, NEW YORK 4, N.Y. • WHITEHALL 3-5253

BLISS TOP *and* BOTTOM STITCHER

Corrugated or Solid Fibre Containers Are Stitched Both TOP and BOTTOM on This STITCHER

Set Up for Bottom Stitching

TOP and BOTTOM Stitched Containers are now specified for packing numerous products. On this Stitcher the bottoms of containers may first be wire stitched, then filled and the tops sealed with wire stitches.

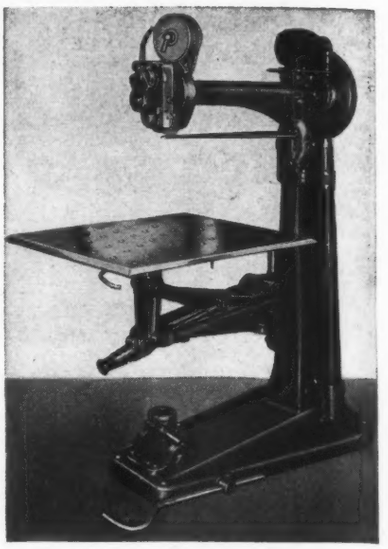
The illustration at the left shows the machine set up for bottom stitching of containers.

For top stitching of filled containers, the post is removed and table and blade anvil swung into position as illustrated at right. Less than one minute is required to make the change.

The counterbalanced table is quickly adjustable for varying heights of boxes.

Built in two sizes, with 15" and 25" throats and 26x30" work table. Handles boxes up to 25" in depth. Standard Bliss Heavy Duty Stitcher Head is used. Motor ¼ HP.

Wire Stitching both top and bottom provides a uniformly secure closure and gives added strength and rigidity to the case.



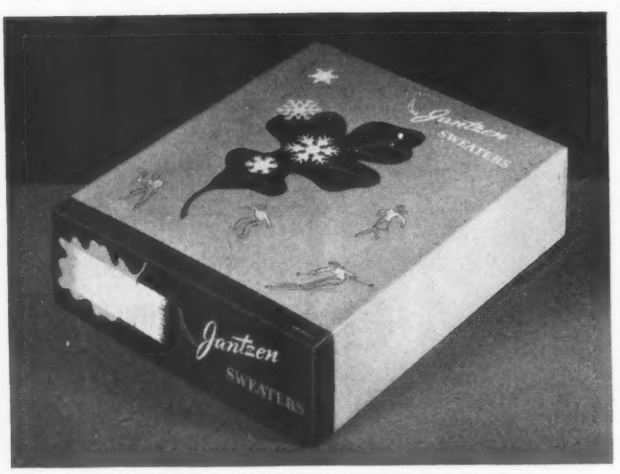
Set Up for Top Stitching

Write for further information.

DEXTER FOLDER COMPANY, 330 West 42nd Street, New York 18, N. Y.

Chicago: 117 West Harrison Street Philadelphia: 387 Bourse Building Cincinnati: 1335 Paxton Street

Good Package Design



IMPORTANT TO MERCHANDISING AND TURN-OVER

Attractive packaging makes merchandise desirable. . . . It is the silent salesman of your product on retailers' shelves.

Recognized for their contribution to outstanding design in modern packaging, the ability and experience of the WLS staff of artisans are at your service.

Interview with Principals • No Obligation

36 Pages . . . 420 Pictures . . . an Exhibit of Performance Write for a copy of it Today on your business letterhead

AMERICA'S LARGEST ORGANIZATION SPECIALIZING IN MERCHANDISE PRESENTATION

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NEW PLASTIC COATED FOILS, FABRICS AND PAPERS TO WATERPROOF AND MOISTURE-VAPOR PROOF PACKAGES. ALSO, PROTECTION AGAINST MILDEW, ACID, DAMPNESS AND RUST.

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CLEAVELAND LABORATORIES

"The Miracle of Plastic Coating"
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LABORATORIES AND MANUFACTURING CO., INC.
Pioneers in the application of Plastic Coatings to Textiles and Paper
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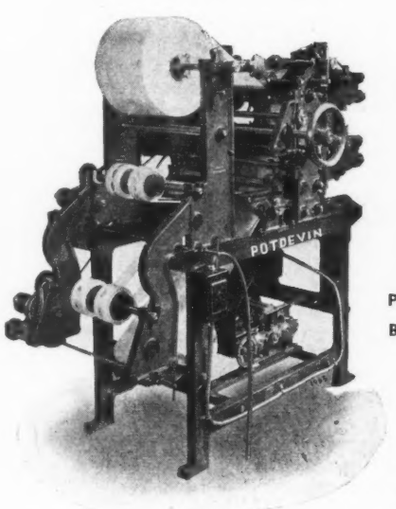
Sole Distributor: NATIONAL COATED PRODUCTS CO., 40 Worth St., New York (13) Tel. Rector 2-5446

POTDEVIN



For Multi-color Printing

LABELS
COIN WRAPS
PAPER BANDS
GUMMED TAPE
PAPER SPOON WRAPS
BOOK MATCH COVERS

• • •

Prints glassine, foil sulphite, kraft, etc.

SPECIALTY
ANILINE PRINTING PRESS
equipped with
slitters and dual shaft rewind

POTDEVIN MACHINE CO.
1244 38th Street Brooklyn 18, N. Y.
Established 1893 Tel. Windsor 6-1700

Finishing—the final touches—can make or break your package. We specialize in every type of finishing operation — varnishing, lacquering, gumming, die-cutting, embossing, punching, straight cutting, paraffining — and offer our special process: LUSTRALITING.

JOHN W. CRAWFORD CO.
Est. 1859
160 VARICK STREET, NEW YORK, N. Y.
WAlker 5-5473

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Publisher reserves the right to accept, reject or censor a classified copy.

FOR SALE

107—New 250 gallon Horizontal Aluminum Storage Tanks, oval shape, 18″ manhole, all welded construction, 64¼″ long, ⅛″ Aluminum Plate.

CONSOLIDATED PRODUCTS CO., INC.
16–20 Park Row New York 7, N. Y.

WANTED—PACKAGE DESIGNER

Free lance artist, experienced in package design. Established Chicago manufacturer with varied line—cosmetics, toiletries, and acetate gift packages. Frequent design problems. Give full particulars. All replies confidential. Box 420, Modern Packaging.

FOR SALE—One Camachine 20 winder-slitter, 218″ trim width, 60″ rewind capacity, complete with unwind stand and 2200 volt AC, slip ring motor drive. Box No. 428, Modern Packaging.

WANTED—A Stokes and Smith Trans-wrap filler, capable of forming and filling aluminum foil bags to contain one ounce of dry powder. Reply Box 422, Modern Packaging.

Large variety of small sized corrugated cartons and chipboard boxes; special prices in quantity lots. Glass Container & Cap Outlet Co., 876 Broadway, N. Y. C., ALgonquin 4-6066.

Paper Cutting and Converting Machinery—Die Cutting Presses—Printing Presses—Slitters—Sheeters—Etc., Bought and Sold. Brooklyn Printers Supply Company, 110 South 8th Street, Brooklyn 11, N. Y. Ev. 8-9725. We purchase complete plants or single units.

PACKAGE DESIGNER—Art Director. Recently discharged veteran. Thoroughly experienced—handling national accounts in recognized designers studio. Crisp visuals—cleancut comprehensives. Box 423, Modern Packaging.

FOR SALE: 1 Knowlton 20″ Convolute Can body Winder, complete with labeling attachment. Immediate delivery. Theo. Adams, 111 W. Washington St., Chicago, Ill.

5000 Gross ¼ oz. Amber Square Bottles, 22 mm.; 10,000 Gross ¼ oz. Amber Round Bottles, 24 mm.; Glass Container & Cap Outlet Co., 876 Broadway, N. Y. C., ALgonquin 4-6066.

WANTED to buy, for cash, model B Transwrap packaging machine. School House Candy Co., 296 Charles Street, Providence, R. I.

FOR SALE: One brand new American Perforating Machine, never used. Model No. 70. Location—Mamaroneck, N. Y. If interested, write or telephone Chief Engineer, Taylor Reed Corporation, Mamaroneck, N. Y.

300 Gross, 1 oz. Opal Jars, 48 mm; 1500 Gross, 4 oz. Opal Jars, 70 mm; 100 Gross, 5 oz. overflow Opal Jars, 75 mm; Glass Container & Cap Outlet Co., 876 Broadway, N. Y. C., ALgonquin 4-6066.

Experienced set-up box man to establish and supervise a large paper box department in Pennsylvania with a national manufacturer. Address application to Box 424, Modern Packaging.

Salesman, desires line of paper specialties, folding cartons, in fact anything in the paper lines. Have two years experience in sales, in Boston and Eastern Mass. Recently discharged from Army. Box 425, Modern Packaging.

4500 Gross, 6 oz. Blue Oval Bottles, 33 mm; 1000 Gross, 6 oz. Amber Oval Bottles, 33 mm, 3 dozen to a carton; Glass Container & Cap Outlet Co., 876 Broadway, N. Y. C., ALgonquin 4-6066.

Young man, with aniline printing press experience. Take full charge of department. Good opportunity with new transparent materials convertor. Box 421, Cromwell Advertising Agency, Inc., 122 E. 42nd St., New York 17, N. Y.

Wanted to Buy, Toys, Novelties, Etc. Cut outs, toys, books, drawings, puzzles, dolls, stationery, with or without printing. In cardboard, paper, wood, metal, leather. Abstract goods, close-outs. Lindner's Toy Exchange, 153-MP West 33 St., New York City 1, N. Y. Longacre 5-7712. Seeking factory representation.

PACKAGING PLANT, extensive modern machinery, will custom pack your product for NW territory. Trackage, receiving, shipping, billing, 3 carload refrigerators. 24 inch assembly or sorting conveyor. Cello wrapping. Cello bagging. Labelling. Continuous monorail basket cooking in syrup or oils. Vegetable wash and tray pack or bag. Confections or nuts cook and package. Complete service. Cayol Foods, 626—3rd Ave. No., Minneapolis, Minn.

To Manufacturers of Packaging and Labelling Machinery, Office Equipment, & Packaging Equipment of Every Description. Sole representation and distribution rights sought for Union of South Africa and North African Colonies by highly reputable old established South African Firm (head office Capetown—sales offices throughout Union and North African Colonies), with most powerful existing established connection of 25 years standing with all the leading largest manufacturers and commercial houses in above territories. Personal contact can be made with Principal of above firm in New York during June and July 1946—write for appointment to "Max," c/o J. A. Ewing & McDonald Co., Greenley Square Buildings, 101 West 31st St., New York City, N. Y. Examples of Agencies Desired: Packaging Machinery; Labelling Machinery; Sealing Machinery: Cellowrapping Machinery; Carton closing Machinery; Typewriters; Calculating Machines; Filing cabinets; Safes and all sundry office equipment. Glass Bottles, Transparent Plastic Containers of all shapes and sizes; Plastic Packages of every Description; Advertising Novelties; "Stock" labels, calenders and blotters; Adhesives; Transparent Scotch Tapes; Transparent Food Wrappings of all Descriptions; Aluminum foil; Christmas Cards; Playing Cards; Etc., Etc.

DESIGNER—ART DIRECTOR—Interesting background packaging, product design, national manufacturers. Typography, production, color standardization, photography, magazine art direction. Box 426, Modern Packaging.

FOR SALE—SMALL FOLDING BOXES. Immediate delivery from Pittsburgh stock. 100 sizes ranging from 3/4 x 3/4 x 1 5/8 to 8 x 3 x 8. All .032 Chip, Kraft and Manila Lined Chip. Straight and Reverse tuck. Priced reasonably. Box 427, Modern Packaging.

WANTED—One winder-slitter, 54″ diameter rewind capacity and 148″ to 160″ trim width. Box No. 429, Modern Packaging.

FLUORESCENT LAMP COMPANY SAVES $15,000

"To change our old type containers to those assembled by wire stitching, one Acme Silverstitcher was custom-built and installed. Efficiency resulted, so our entire sealing system was converted and a saving of $15,000 annually realized in material alone."

USE THE CLOSURE COMBINATION THAT

SLASHES SEALING COSTS

SilverStitch REG. U.S. PAT. OFF. — BOX STITCHING WIRE

SilverStitchers REG. U.S. PAT. OFF. — BOX STITCHING MACHINES

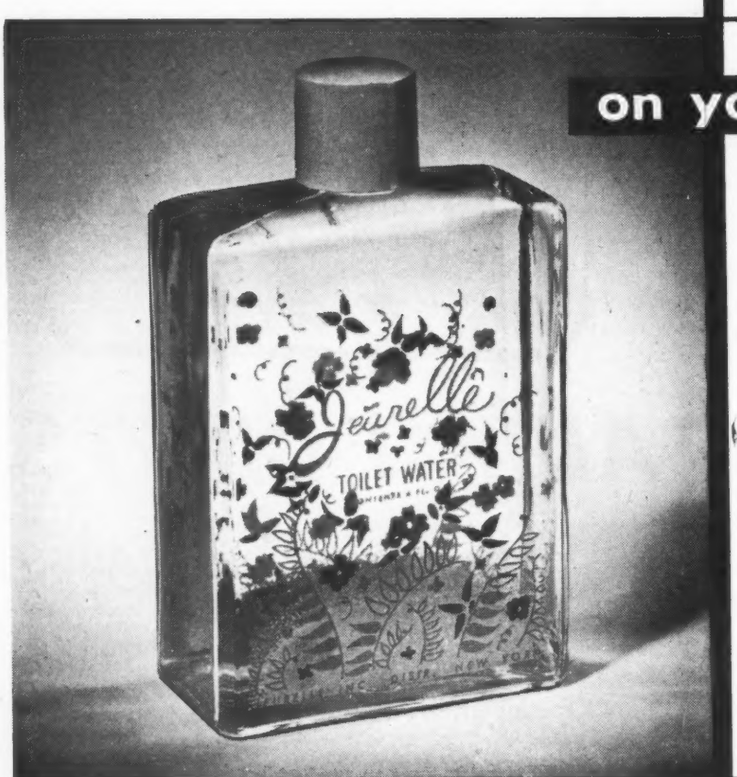
- Always uniform in width and gauge
- Makes stronger, surer closures than other methods . . . unaffected by weather
- One-piece, continuous length, 5 and 10 pound coils . . . cuts threading time
- Galvanized to resist rust, corrosion
- Operate easily, smoothly, quietly
- Heavy duty construction . . . low power consumption . . . for long thrifty service
- Few moving parts . . . vital ones reversible . . . for lower maintenance costs
- Adjustable, single pedal control

Sealing Shipping Containers by Stitching is Faster, Stronger and More Economical

ACME STEEL COMPANY

NEW YORK 17 · ATLANTA · CHICAGO 8 · LOS ANGELES 11

Creative DECORATION



on your package

Emphasizes transparency

Lends distinction

Helps sell the product

Specialists in printing and decorating glass and plastics packages. We are equipped to handle your decorating in any quantity.

Creative **PRINTMAKERS, INC.**

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SURFACE DECORATORS FOR THE PACKAGING FIELD

IN CANADA: 2424 YONGE STREET, TORONTO, ONTARIO

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were thinking about

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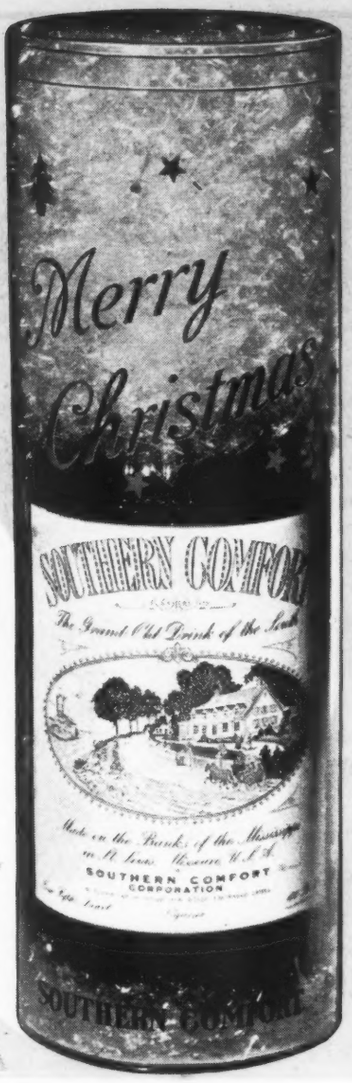

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1

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2

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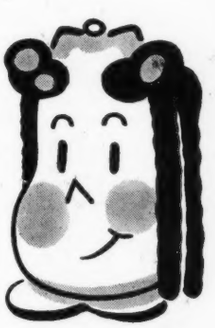

3

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4

Michigan CARTON CO.

BATTLE CREEK, MICHIGAN

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2. Snap! Crackle! Pop!—W.K. Kellogg Co.
3. Little Lulu—Kleenex Tissues
4. Gerber Baby — Gerber Products Co.

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